AMERICAN AGRICULTURIST.

Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. X. NEW YORK, FEBRUARY, 1851. NO. II.

A. B. ALLEN & R. L. ALLEN, *Editors.* C. M. SAXTON & E. BLANCHARD, *Publishers.*

SOLON ROBINSON, *Assistant Editor.*

THE

AMERICAN AGRICULTURIST

AND

FARMERS' CABINET.

Publication Office, 123 *Fulton st., Up Stairs.*

BY

C. M. SAXTON & E. BLANCHARD,

PUBLISHERS.

TERMS.

The Agriculturist is published on the first of every month and forwarded by mail to single subscribers for

ONE DOLLAR A YEAR.

Three copies will be sent for $2. Eight copies for $5, or one copy sent three years to one subscriber for $2. Payments always to be made in advance. See advertisement of Premiums for new subscribers on the cover. Also, reduced prices for bound volumes. Subscribers may commence a year with any month. The volume commences in January.

N. B. Every subscriber who does not wish to continue his subscription, is desired to write his name and post office on this number and return it, or inform the publishers immediately.

POSTMASTERS, TAKE NOTICE.—You will please to make it known if subscribers do not take their papers out of your office.

POSTAGE on this paper is only one cent and a half, anywhere in the United States, except California. *It is not* chargeable with pamphlet postage. For terms of advertising, see cover.

CONTENTS OF FEBRUARY NUMBER.

A Great Milker; Substitute for an Ice House; Bouilli 42
Cure for a Bellowsed Horse; Whence Comes the Nitrogen that is Appropriated by Plants? Insects Destructive to Peach Trees; Imported Berkshire Pigs 43
Improved Breeds of Cattle—Their Inheritable qualities; To Cure Stings and Bites; Plaster upon Clover; To Tame a Wild Sheep 44
Chain Gates; Ice—Ice Plow—Ice Houses; How to Make Ice in a Hot Climate 45
Preserving Snow; Vegetables and Fruits in Use in England at Different Seasons of the Year; Village Lectures.—No. 4 46
Bullock's Portable Progressive Power Press; To Make Boots Water Proof 48
Notes from a Kitchen Gardener's Memorandum Book.—No. 1 49
Ventilation 50
Value of Dogs; Review of Professor Johnston's Notes on American Agriculture Continued 51
The Princess Tribe of Shorthorns, Samuel D. Martin; Reply to Dr. Martin, A. Stevens 54
Wash for Apple Trees 55
Hen Show and Hen Fever, Solon Robinson 56
Are You Prepared for Winter; Large Cattle in Kentucky, J. G. Kinnaird 58
Cattle Shows and Fairs in Kentucky, James G. Kinnaird 59
Review of the January Number of the Agriculturist, Reviewer 61
Effects of Irrigation 62
Salt for Cattle and Sheep, Solon Robinson; English Ray Grass and Italian Rye Grass, Charles R. Alsop 63
A Jaunt in Ohio.—No. 1, A Visitor 64
Experiment With Corn—Deep Plowing and Green Crops, U. B. Oglesby; An Improved Sheep Hopple; To Prepare Anchovies 66
LADIES' DEPARTMENT: Cheap Luxuries; Fried Potatoes; A Fine Hush; To Make Maple-Sugar Custard; Valuable Washing Recipe; Frying Fresh Fish; Blowing out a Candle; To Clean Silks; Dyspeptic Boarding House 67
Foreign Agricultural News 68
Editors' Table 69
Review of the Markets 70

A GREAT MILKER.

The Right Sort of Spirit.—Mr. S. P. Chapman, of Mount Pleasant, New York, has a thoroughbred shorthorn cow, called Ruby. Now the said cow is a very fine one, even for a shorthorn; and in the eyes of good judges, would have stood fair any time to take a first premium at our state cattle shows. At Albany, last September, her owner would not thus enter her; but inasmuch as a few prejudiced individuals continue to assert, (although the contrary has been proved a thousand times,) that no shorthorn cow can equal a native or grade Durham for great milking qualities, he determined to test this point with Ruby; so he simply entered her as a "milch cow," to stand her chance as a milker among grades, natives, or any other breed shown. The competition was more numerous than we ever before witnessed, and yet Ruby took the first prize!

The following is Mr. Chapman's account of her performance at two trials last summer:—

Ruby, the cow for trial, was kept on grass, only, during the experiment and for fifteen days previous to each period or trial.

1st. She was five years old the 10th day of April last; is a thorough-bred shorthorn, and her time of calving this year was the 27th of May.

2d. The quantity of milk, in weight, for the first trial, from the 10th to the 20th of June, was 530¼ lbs. The quantity of butter made was 20¼ lbs. (One pan of milk during this trial was lost from leakage, which would have made one fourth of a pound more of butter). The quantity of milk for the second trial, from the 10th to the 20th of August, was 469¼ lbs. The quantity of butter was 19 lbs. and 14 oz. The quantity of milk given each day of trial and the quantity of butter made every two days is her given:

June.	Milk.	Butter.	Aug.	Milk.	Butter.
10	52 lbs. 14 oz.	4 lbs. 8 oz.	10	45 lbs. 14 oz.	3 lbs 3 oz.
11	54 6		11	50 6	
12	50 6	3 14	12	48 6	3 8
13	52 14		13	49 6	
14	52 14	3 13	14	45 14	4 4
15	51 14		15	50 14	
16	53 6	4	16	44 14	4 12
17	52 14		17	48 6	
18	52 14	4 1	18	46 14	4 3
19	55 14		19	48 6	

It will be seen by the statement that the 16th and 17th of August, she gave 93¼ lbs. of milk, which produced 4 lbs. 12 oz. of butter—or 1 lb. of butter to less than 20 lbs. of milk. The weather was excessively hot during some days of the trials, the thermometer ranging as high as 90° F. in the shade.

Ruby has given from the 10th of June to the 20th of August, a period of 71 days, 3,584¼ lbs. of milk, being an *average* of more than 50 lbs. per day. During all this time, she had no feed but grass, with the exception of two bushels of shorts, fed about the first of July.

Now as to the matter of shorthorns, as well as all other kinds of stock, we have invariably endeavored to tell our readers not only the truth, but the *whole truth*, without any sort of reservation or humbuggery; and we do assert, and challenge a reliable contradiction, that the shorthorns and their grades, when properly bred with reference to milking qualities, have proved the greatest and best milkers of any other breed or their crosses, whatever. It is true, that in several districts in England and this country, shorthorns are bred for *beef alone*—their owners do not care for milk. Under these circumstances, they are not good milkers, and no other breed would nor could be. Such breeders merely let the calves run with the cows four or five months to suck what milk they please; they are then weaned and the cows dried off. By following this course two or three years, the best cow in the world would be spoiled as a great milker; and so would her progeny; but give us the worst milking shorthorns to be found, and by paying attention to their breeding for three generations, we will engage to make five out of seven of their grand daughters good milkers.

Substitute for an Ice House.—Take a large puncheon with one head, and bury it in loose porous earth in some shady place; or for lack of such earth, dig the hole larger than the cask and fill around it pebbles, sand, charcoal, and provide a drain beneath. Make a hole in the bottom of the cask, so that it will not hold water, and leave a space under it of some inches. Now take an iron-bound tub, eight or ten inches less diameter than the inside of the puncheon, with a hole also in the bottom directly over the other. Fill the space between the tub and cask with pounded charcoal and fit a tight cover on top and cover that with a bag of coal after it is filled with ice.

Bouilli.—This fashionable term for a very common dish, which sometimes bothers the brains of common people, is nothing but the French term for boiled meat; so that when you see *beef bouilli*, upon your bill of fair, do not imagine for a moment that it means *bull beef*, but simply beef boiled; though perhaps you will find it garnished with some herbs or vegetables with French names, which are none the better for their outlandish appellation or French cookery.

CURE FOR A BELLOWSED HORSE.

Some few weeks since, being overtaken by a severe thunder storm on my way home, I took refuge under a shelter where were assembled several gentlemen, from the same cause. One of the gentlemen, a stranger to me at the time, thus accosted me.

"Why do you not cure your horse of the bellows?"

"For the very reason that I cannot," I replied.

"Well, stranger," said he, "when I am at home I cure all such cases, and warrant them, at $10 a head; but as I am a long way from home, and your horse is a valuable one, I will tell you how to cure him effectually in a few days. In the first place," says he, "give your horse salt in his water, for three mornings in succession; after that, pound up a piece of bluestone about the size of a chinquapin, and mix with wet meal; give him the same quantity for ten consecutive mornings, feeding him rather lightly for ten days, and if he is not a well horse at the end of ten days, I'll give you my head."

I have tried the remedy, and it has wrought a perfect cure, and now give it to the readers of the Enquirer, that they may save their horses and their ten dollars too.

—

The above, clipped from one of our exchanges, is undoubtedly a very valuable remedy for a very bad disease, provided any body knows what it is. We'll be "blowed," if we do, and we have consulted every book in our library that says anything about horses, and we are still ignorant.

"Pound up a piece of bluestone." What is that? We suppose some men know the medicine; but how big is a *chinquapin?* What portion of our readers know it is a nut about the size of a piece of chalk, and a very small piece at that? But what is a "bellowsed horse"? Will somebody give some definite information about the size of a chinquapin?

WHENCE COMES THE NITROGEN THAT IS APPROPRIATED BY PLANTS?

It has been a current opinion among vegetable physiologists, that nitrogen, or azote, which constitutes a small proportion of every plant, is obtained only from the soil, or the manures which are added to it. The rationale by which this conclusion was reached was never very satisfactory to our own minds, and we are glad to perceive it has at last become equally unsatisfactory to others. Mr. G. Ville, of France, has quite recently communicated a series of experiments on vegetation, in which he thinks he has clearly demonstrated, "that the azote of the atmosphere, so far from being an inactive element, has a very important share in the nutrition of vegetation." As Mr. Ville is a gentleman of talent and acquirements, and has devoted three years of unremitting attention to this subject, his conclusions are entitled to attention.

It has always been conceded, that carbon, (as carbonic acid,) is largely absorbed from the atmosphere by growing plants, while it has been as stoutly denied that its nitrogen conduces in the remotest degree to their growth and development. Yet, even if limited to its nutritive capabilities, only when in a state of combination, as ammonia, the exceedingly minute portion existing in the air, may, when brought to it by this constantly-moving fluid, during the entire period of the growth of the plant, contribute largely to its support. We have as yet seen only the announcement, not the details, of this alleged discovery, and we hope to be able to speak more fully on this interesting subject hereafter.

INSECTS DESTRUCTIVE TO PEACH TREES.

Among other things which blight the prospects of peach growers is a small green grasshopper, that lives upon the leaves, eating small round holes, from August until the first heavy frost. They commence a cricket-like noise soon after sunset, and continue through the night.

The female punctures the young bark with a sting, like a locust, and deposits a small transparent egg of an oblong shape, and closes the orifice with a kind of gum from her mouth. These eggs hatch out in April, leaving a hole from which the peach gum exudes, and a small dead spot under the bark. The grub is a small white worm, somewhat resembling the common peach worm, only much smaller. Is it possible this can be the cause of the yellows in peach trees? It is a subject worthy of investigation.

Imported Berkshire Pigs.—We were shown a few days since, a boar and sow of this favorite breed, which have been imported by Mr. C. W. Simmons, of Yonkers. They are from the celebrated stock of G. Hayter, Esq., M. P., of Tulscot Farm, Berks, and are very fine specimens of the breed, and will doubtless do much to improve the species in this neighborhood. They are probably the only imported Berkshires in the country. Mr. S. can be found by addressing him at William's Bridge, Westchester county, N. Y.

IMPROVED BREEDS OF CATTLE—THEIR INHERITABLE QUALITIES.

We hear frequent discussions from time to time, and nowhere in greater abundance than among the wise heads of the east, while familiarly congregated as the aggregate agricultural wisdom of some legislative body, on the superlative merits of our *native breeds of cattle.* And in this prolific and never-ending, and perhaps it might be justly enough characterised, *no-point* discussion, we hear the *Oaks cow* and the *Nurse cow* always brought forward, as conclusively settling the points in favor of "our native cattle." The most of this branch of their discussions, we must class as pure twaddle.

We have no such thing as native cattle in the strictest sense of the word. Neither cattle nor sheep, nor horses, nor even swine were found on this continent, herding with the aborigines and their scarcely less wild associates, the deer and the wolf, the elk and the bear, the moose and the catamount. They were imported—every drop of the ancestral blood—by their European masters, and bore as distinctly as any breed of the present day, the peculiarities of their race. These peculiarities have been modified from time to time, by the importation of various improved animals, which, if our forefathers had any notions of improvement, (and we readily concede them a good many, in their way,) they would not have failed to use for the improvement of their old stock. The same motive for progress would also induce them to breed their animals with some reference to the good qualities of their ancestors. The result of all this would be, the not unfrequent possession of excellent specimens, derivable in most instances, perhaps, from the direct use of choice imported animals of some favorite or superior breeds. Nobody has traced the parentage of those celebrated milkers, the Oaks and the Nurse cows; and we venture the assertion, that had this been accurately done, there would have been found, and not far before them, some choice animal, whose peculiar excellence had been augmented by some unusually fortunate combination. Yet there was not enough of this inbred superiority to stamp it indelibly upon their progeny, for it is not asserted, that any of these animals left any posterity, at all distinguished for their milking qualities.

Per contra. We can show in many of the *shorthorn* herds, that are looked down upon with so much self-complacency by these anti-improvers, numerous instances of larger yielders, whether of milk or butter, and what is of a great deal more consequence, we can show their relations, whether in the ascending or descending line, as uniformly possessing this quality. Here is the great and overshadowing superiority of the improved breed—*transmissible qualities, reliable and unmistakable;* and we claim, too, for this breed, that while they are superior as milkers, and some families of them immeasurably so, when they have ceased to yield an abundant flow of milk, they will take on flesh as rapidly as any other breeds, and much more so than most of the falsely-styled natives.

We have selected the shorthorns as illustrating the principle we wish to establish, but of course are not to be understood as limiting the improvements to this or any other breed. Each has its peculiar merits, more especially adapting it to particular localities, or to different purposes.

TO CURE STINGS AND BITES.

Wash the wound with water of ammonia, or a solution of chloride of lime. If the bite is very poisonous, in addition to the above, cauterise it with lunar caustic. Bites of dogs supposed to be mad, have been seccessfully treated in this way.

For the bite of a snake, where no other remedy is at hand, let the patient be made deadly drunk as soon as possible; this will save life upon the principle of the greater poison counteracting the lesser one. For hydrophobia, a new remedy has been discovered lately in France. The drug is called cedran. It is said to counteract, also, the bite of the rattlesnake.

Plaster Upon Clover.—With the exception of a small district near the sea shore, clover is greatly benefited by the application of plaster of Paris. About one bushel to the acre is, perhaps, the most suitable quantity. Apply it upon a moist day, early in the spring. Ammonia is constantly brought to the earth by dews, rains, or snow, and the plaster acts as a collector of this fertilising matter, and preserves it for the use of the plant.

To Tame a Wild Sheep.—One of our subscribers informs us, that cutting the ears or tail of a sheep so the blood will run somewhat freely, has a tendency to tame a sheep quicker than any other means within his knowledge. We saw the experiment tried upon a stout wether, that was somewhat fractious; as soon as he saw the blood trickling down his face, he lay down and submitted to the hopples without a struggle.

CHAIN GATES.

In a great many situations where iron gates are desirable, the chain gate would be preferable to any other form for strength, durability, and cheapness; and as they have never been introduced to any extent in this country, they would be quite unique in appearance, and highly pleasing to the eye.

These gates are composed of frames of bar iron and a sheet of chain work, which may be composed of small linked chains connected by cross links from every other link of the chains, or the whole be made new of any form to suit the taste.

The cost per square foot, of a sized iron like stout trace chains, would be 60 to 75 cts., the weight being about five pounds. For situations where great strength is not particularly desirable, the common wire-work gates, heretofore described, would be the cheapest. But in many places, it is desirable to have a gate or door for ventilation, which will resist all ordinary attempts to break through, while it shall be ornamental, but not heavy enough to give it a prison-like appearance. In a gate made of wire or rods, the cutting or breaking of a single wire will perhaps be sufficient to give an opening, while in the chain gate, several links must be cut before the hand of a rogue even could be thrust through to reach the lock or fastening on the other side.

A very pretty cheap gate is now in this city, made of wire crimped together by newly-invented patented machinery, which we think far preferable to cast iron; but when ventilation and strength are necessarily combined in the construction of a gate or door, no form can be given to iron equal to the chain-work gate.

The citadel of Quebec has gates of this kind, which would resist cannon shot much longer than plate iron of double the weight. Another advantage of this form of iron work, is, that contraction and expansion of the atmosphere has no effect upon it.

ICE—ICE PLOWS—ICE HOUSES.

Will you please to publish a description of the ice plow and other tools for cutting ice, and any information in your possession in relation to ice houses, cutting, packing, and keeping ice?

Thos. B. Coursey.

Spring Mill, Del., Oct. 23d, 1850.

—

We cannot give any intelligible description of the ice plow and other tools used in the business, without a series of expensive engravings. Since the receipt of the letter of our Delaware correspondent, we have written to the manufacturer of these ice-cutting implements, who responds to us as follows:—

The tools used by large companies for cutting ice, are, (a marker with swing guide,) a cutter, or plow, which can be made to cut any depth; a grooving bar, formed to fit the groove made by the plow, to break off the ice below the groove; hooks to handle the blocks; chisels to trim them for packing; sliders to move the ice upon; also saws for cutting a place for making a commencement, and snow planes. In small operations, the marker may be dispensed with and use a small plow with a guide attached. The prices of the several articles we annex:—

Ice marker,	$75
Ice plow, or cutter,	$50
Small plow, with marker or guide attached,	$50
Grooving bars and chisels, each,	$4
Saws,	$7 to 8
Hooks,	75 cts. each.
Snow plane,	$38 to 40.

The use of the marker is to lay out the whole field of ice so that it will cut up into blocks of exact sizes and square forms. For cutting thin ice for family use, we could probably furnish a cutter for one fourth the above price, which would answer a very good purpose.

For information about ice houses, we must refer to the back volumes of the Agriculturist, where the subject has been fully treated and illustrations given. See page 370 of vol. ii., and 280, 324, and 345 of vol. iv. We would willingly republish this information, only that many of our subscribers have the whole work; and to them the matter would be a repetition to which they would very properly object.

HOW TO MAKE ICE IN A HOT CLIMATE.

For the benefit of our southern friends, we now give an article on the process of making ice in the East Indies. In regions where natural ice is never seen, it is procured by artificial means in this manner: Pits are dug in a large open plain near Calcutta, about thirty feet broad and two feet deep; upon the bottoms of which are laid a bed of dry stalks of sugar cane or Indian corn, from eight to twelve inches thick. Upon these beds are placed rows of small, shallow, unglazed, earthern pans, made of a porous kind of earth; similar to our common red earthern ware, about one fourth of an inch thick, the inside being only an inch or an inch and a quarter deep. Just at dusk, of a suitable evening, which must be clear and cool, these pans are filled with soft water which has been previ-

ously boiled and cooled. In the morning, this water is found frozen into a loose mass somewhat like coarse snow and is removed before sunrise to the preserving pits, which are formed upon some high, dry situation, twelve or fifteen feet deep, lined with dry straw and coarse blanketing. As fast as deposited, it is beat down as solid as possible, until the accumulated mass becomes so cold, that it freezes into a perfectly compact mass. The pits are thatched over and secured by dry straw, which preserves it for a long time. Many hundred persons are thus employed, their success depending upon a light atmosphere and clear, serene weather, and great care to have the straw dry, as this curious effect is not, as might be supposed, altogether attributable to evaporation.

No doubt, the Boston ice trade has sadly interfered with these oriental ice manufacturers.

PRESERVING SNOW,

For summer use, has been practised in Italy for long ages. A deep conical-shaped pit is dug in dry porous ground, and lined with faggots and straw, and provided with means of drainage. The snow is gathered and packed very tight and covered over with dry straw and a double-thatched roof which keeps it even better than blocks of ice will keep.

But it is not at all necessary to dig a pit to form an ice house. If a mass of snow or ice were piled up in a conical form, six or eight feet high, and covered over with a stack of straw, it would keep all summer.

VEGETABLES AND FRUITS IN USE IN ENGLAND AT DIFFERENT SEASONS OF THE YEAR.

January.—Cabbage, colewort, sprouts, Savoys, leeks, onions, beets, sorrel, endive, chervil, spinach, celery, garlic, shalotes, scorzonera, potato, parsnips, turnips, broccoli, lettuce, cresses, mustard, rape, salsify, various herbs; also cucumbers, asparagus, and mushrooms, though out of season. Fruits—apples, pears, grapes, melons, walnuts, and other nuts.

February and March.—In addition to the above, kidney beans and forced strawberries.

April, May, and June.—In May, new potatoes, early peas, kidney beans, carrots, turnips, early cabbages, cauliflowers, asparagus, artichokes, and all sorts of forced salads.

In June, strawberries, cherries, melons, green apricots, currants, gooseberries, pears, grapes, nectarines, peaches, and some other fruits; nearly all of which are grown for the London market, and of course very dear.

June, July, and August.—Vegetables of all sorts abundant, particularly beans, peas, potatoes, French beans, onions, cabbages, &c.

In July, strawberries, gooseberries, pine apples, plums, cherries, apricots, raspberries, melons, currants, damsons. In August and September, peaches, plums, figs, filberts, mulberries, cherries, apples, pears, nectarines, grapes, pines, melons, strawberries, medlars, quinces, Morello cherries, damsons, and other late plums.

October, November, and December.—Carrots, turnips, parsnips, potatoes, skerret, scorzonera, onions, leeks, shalotes, cabbage, Savoys, colewort, spinach, chard beets, cardoons, cresses, endive, celery, lettuce, salad, and pot herbs. Some of these last mentioned continue into October; then apples, bullace plums, medlars, damsons, quinces, &c., and others as in January.

Many of the fruits that grow luxuriantly in America, in the open air, can only be grown under glass in England. The advantages of cheap fruits, every one may possess in America, cannot be enjoyed by the common people of England. Peaches, such as often sell in the New-York market for one dollar a bushel, would sell in London for a dollar or even two dollars a dozen.

VILLAGE LECTURES.—No. 4.

The Soil and the Air Continued.—Take a jar full of oxygen gas; it is not common air, though air contains it, and it is to the oxygen that the air contains, that it owes its ability to burn things, and its ability to maintain respiration—the breath of life in living animals. In the air, this gas is mixed with another, called nitrogen, which dilutes the former, so as to make it fit for the ordinary conditions of human life; were it not thus diluted, it would be much too violent in its action. I have here a jar full of it, and you will see that it makes use of the least spark to produce a flame; so that if the air were pure oxygen, every spark would end in a conflagration.

I shall burn this piece of wood in this oxygen gas. Now, on removing the wood, I find a portion of it has disappeared—it has burned up—it has united with the oxygen gas, and is now in this jar, in the form of a clear gas. The gas is of very different properties now; the oxygen gas being satisfied by union with the charcoal in this way, has no longer any appetite, so to speak, for union with other things of the same kind; it will not now unite with the substances of tallow, and consequently so far from encouraging that chemical action which is pro-

ductive of flame, it would extinguish flame immediately on its being brought in contact with it; and therefore, also, so far from encouraging that chemical action which goes on during respiration of animals, and to which the healthfulness of a fine bracing air is owing, it extinguishes that chemical action at once, and would choke any animal that fell into it; but to this point we shall refer again.

Now, if I prove that the air contains this gas, the carbonic acid gas, as it is called, which contains the charcoally part of wood, then I shall have proved that the air contains the very substances which we find in trees and plants, and which they take from it in the act of growth. and this is the way in which I prove that. The carbonic acid gas is recognised not only by its extinguishing flame and destroying life, but by this curious property, that when united with lime it forms a chalky insoluble substance; so that if I pour some clear lime water into this jar of it, and shake it up to induce the lime of the water to unite with the gas, it will become white and milky in appearance, owing to the formation of this chalky, insoluble substance, as you see. Now, if I can pass a quantity of common air through some lime water, and the lime water, originally clear, becomes milky in this way, it will be because it, too, contains carbonic acid, and I shall thus have proved that there is in the air, a gas which contains the very particles of charcoal which our plants and trees require for their growth. Of course the air contains a very small portion of it, not so much as $\frac{1}{1000}$ of its bulk; because, if it contained much, it would destroy life instead of preserving it; and I must, therefore, employ an apparatus which enables me to draw a large quantity of air through a small quantity of lime water; such an apparatus, in fact, as I have here, where the water below falls out and pulls the air in after it, through the lime water in this crooked tube; and you see that though clear before, it is muddy enough now, owing to the formation of chalk in it, or carbonate of lime; and I have thus proved that the air contains the carbonic acid gas which was necessary to form this chalk, contains charcoal—contains the substance of our plants and trees.

The air, then, contains charcoal, and gives it to plants. The fact is, that carbonic acid gas is a compound of charcoal and oxygen; you saw it formed when I burned the charcoal in the oxygen; and the fact is, that, in the sunshine, plants absorb the carbonic acid, take its carbon, or charcoal, and give back its oxygen pure to the air. But before you can see the beauty of this process, for it does appear a really beautiful thing when rightly understood, it is necessary for you to know the properties of these two gases. Carbonic acid gas is "choke damp;" it sometimes collects in old wells and pits, and would then kill any one who enters them. It is heavier than common air, and so sometimes collects in deep places. There are places where this gas accumulates on the surface of the earth. There is a valley in the island of Java, in the bottom of which there is a spring of this gas, and accordingly the valley is a lake of carbonic acid gas, and it is, in reality, what is called, the Valley of Death. Travellers who have visited it describe it as an utterly barren basin, with a rim of remarkably luxuriant vegetation, and the skeletons of animals cover the ground beneath; they had wandered in, been choked by the gas and died. There was a skeleton of a man lying a little way down the slope; he had unwittingly entered the fatal lake of air, been intoxicated by breathing it, for it is a narcotic poison, and lying down, had died. No one dared venture to enter the fatal air to help or recover a friend without the certainty of sharing his fate.

Now, wherever oxygen is united with charcoal, it is forming this deadly destructive gas; and every fire that burns, and every dungheap as it rots, and every breath that is drawn, is simply a uniting of the charcoally substance of wood or coal, or straw or food, with the oxygen of the air, and is constantly giving out carbonic acid gas. And the air, though it contains but little proportionally, contains a great deal of this gas actually. There is but $\frac{1}{1000}$ part of the air that is carbonic acid gas, but then there are 42,000 tons of air resting on every acre of the earth's surface, so that there are actually 400 lbs. of carbonic acid gas—a quantity containing 100 lbs. of charcoal—in the air over every square perch of ground; and this, of course, increases with every breath that is drawn, and every fire that is burned, so that we might suppose, in the course of years, the atmosphere would become loaded with this gas, and animals would be unable to live in it; and no doubt this would ultimately be the case; for besides the fires which are thus making the air unfit for animal life, animals are rapidly making it unfit for themselves. Each of us gives out carbonic acid gas with the air we breathe—our lungs are in fact, a little fireplace within each of us, where our food is in a great measure burnt up, and our windpipe is the

chimney by which the products of that combustion are sent into the air. It is in this way that the heat of the living body is kept up, whatever the coldness of the air. Whenever carbon unites with oxygen gas, heat accompanies the chemical action, and whether it be the coal in our fireplace, or the straw in our dungheaps, or the tallow in our candles, or the food in our bodies—the union of the oxygen of the air with the charcoal they respectively contain, affords heat—heat in proportion to the rapidity of the process of union and the quantity of carbon in the fuel; and so, in order to increase this heat and induce the oxygen to combine rapidly with the charcoal, we build chimneys to draw the air through the furnace, or we turn over our dungheaps to cause the air to mix with them more thoroughly, or we run about and take exercise in order to breathe the faster; and so the furnace gets hotter, and the dungheap heats more rapidly, and we get warmer; or perhaps the heat is increased by using substances which contain more charcoal to unite with the oxygen gas; and in this way, coke makes a hotter fire than wood, and oil or camphine, a brighter light than tallow; and for this reason, too, the Esquimaux of the arctic regions eats enormous quantities of blubber, while the inhabitants of the hot countries of India and China live sparingly upon rice. The heat in every case is proportioned to the quantity of charcoal which can be got in a given time to unite with the oxygen of the air; and so the cold-country man makes a perfect oil lamp of his lungs within him, and takes boisterous exercise to keep the bellows blowing, in order to preserve his warmth; while the hot-country man of placid temper and sluggish movement eats sparingly, employing less fuel, because he loses less heat.

BULLOCK'S PORTABLE PROGRESSIVE POWER PRESS.

Fig. 7 is a side view of Bullock's Portable Progressive Power Press. Fig. 8, is an end view of the same, with the follower run up and pushed one side preparatory to filling the box.

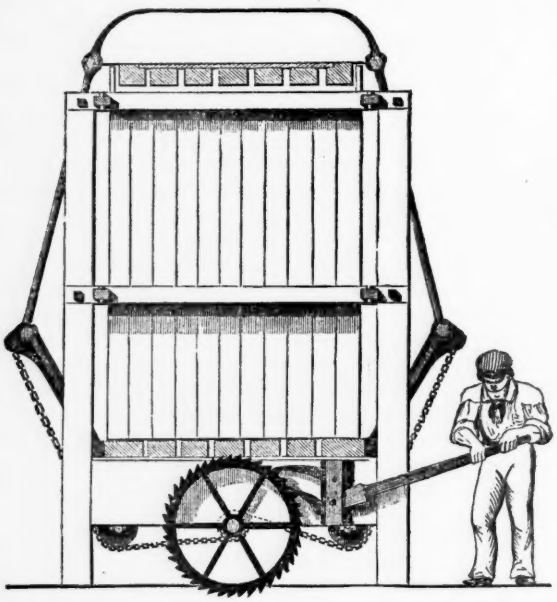


Fig. 7.

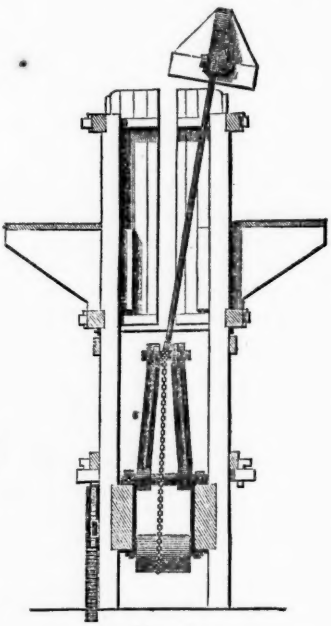


Fig. 8.

These presses are in use in this city for baling dry goods, rags, cotton, hay, wool, hemp, flax, paper, moss, &c., and they are taking the place of other presses throughout the country. Manufacturing establishments and warehouses, are generally adopting these presses on account of their great *convenience, power, and durability*, and the dispatch with which the work is done.

To Make Boots Water Proof.—Melt 3 oz., each of rosin and beeswax, and stir in 1 pint of boiled oil and heat all well together; when partly cool, add 3 oz. of oil of turpentine. Apply hot with a brush.

NOTES FROM A KITCHEN GARDENER'S MEMORANDUM BOOK.—No. 1.

It being my custom at the close of the year, to review my gardening operations of the past seasons, every day's work of which is noted in a book kept for such purpose, from which, in many ways, I derive much benefit; and, noticing your frequent invitations to all interested in similar pursuits, as well as to the more extended branches of agriculture, to send in anything that may to them appear interesting, I now hand you the inclosed, which is at your disposal.

Bergen, N. J., Dec., 1850. J. P. G., Jr.

—

Manure and Manuring.—As soon as the ground, which is clay loam, is cleared in autumn, I spread over it barnyard manure, selecting that which is well rotted, and free as possible from seeds, which is incorporated with the earth by deep digging. In spring, I break it up again, and apply a moderate coating of wood ashes, on which is immediately applied a coating of powdered charcoal, and with a strong rake thoroughly mix both with the soil. The barnyard manure is used to keep the land in substance, or heart; the ashes to supply potash, which enters largely into most of the garden products; the charcoal to furnish free carbon, which, in addition to the carbonate of potash furnished by ashes, is said to be freely taken up by the plants. I have observed this course of manuring to be attended with beneficial results.

The past season, I made the following experiment by manuring the ground for beets and carrots, a quantity of which, the previous year, I raised for fodder, and when feeding, collected both the solid and liquid parts of the manure, made from each species of root separately, and in the spring, applied it to the respective plants, and found the result highly satisfactory; and I would be glad if others would make similar trials, with the view of simply illustrating the principle of manuring as taught by agricultural chemistry, which I understand to be that of returning to the soil, a portion taken from it, and furnishing the plants food, which they most readily assimilate. Having practised this mode of manuring but one season, I cannot positively assert that the fine growth of roots was to it attributable, and at present, intending to pursue it another year, would like to have the views of others respecting it.

Lettuce.—Though preferring the curled varieties, they being more tender and handsomer in appearance, I planted on the 16th of September, the "hardy green," to stand the winter, in order to have a full supply of plants to put out early in spring, with the view of ascertaining what number can be raised on ground, which, during their growth, would not otherwise be occupied. Not being particular in choice of location—though doing best in damp ground—they can be grown almost anywhere; and requiring but a short season to attain a size suitable for the table, they may be set out on ground intended for tomatoes, egg plants, melons, okra, peppers, and between rows of early cauliflowers, cabbages, bush beans, parsnips, beets, &c.; and not being inconvenienced by partial shade, will do well between rows of peas, pole beans, and early sweet corn.

In my opinion, the science of kitchen gardening consists, in connection with producing handsome and early vegetables, in obtaining the largest quantity from a given piece of ground, which can only be accomplished by close observation, constant cultivation, and a liberal application of manure.

Spinach.—No kitchen garden should be without a bed of this early and wholesome vegetable. The "broad-leaved" variety, I consider preferable, which, when cut at suitable time, and properly dressed, is esteemed by me, as one of the best productions of the garden, and should not be neglected, especially by those who do not cultivate asparagus. For the last three years, I have raised spinach and melons on the same ground. In autumn, after the melons are off, I sow spinach in drills one foot apart, which is usually cut by the time the melon plants are ready to be put out. Should its growlth be retarded by a backward season, put out the melon plants precisely as if there were no spinach sown, which can be done with but little interference; and before they require other than a small portion of the ground, the spinach will be over. Ground well manured and timely hoeing is all the cultivation required.

Peas.—Of all the varieties with which I am acquainted, the "Prince Albert" is the earliest; and in order to have this delicious vegetable early, it is worthy of cultivation; but for a general crop, it is by no means profitable. The yield is light, the pods short, and the fruit very small. By some, the "cedo nulli" is chosen for an early pea; but I am convinced that it does not fruit so quickly as the Prince Albert, and like that variety, producing small fruit, and yielding light, I consider it not desirable.

For a succession, I prefer the "early emperor," which comes in about ten days later than the Prince Albert, producing a fair crop of medium-sized and finely-flavored fruit.

Next in rotation, I plant "Fairbeard's champion of England," which, in quick succession, follows the early emperor. It is a profuse bearer, producing large and well-flavored fruit, in a lengthy and well-filled pod, and is esteemed by me, best of all the peas I have cultivated.

For a later variety, the "British Queen," on account of its superior size, as well as agreeable flavor, is desirable. The vine, however, is lengthy and stout, and requires to be well rodded, or else it is is troublesome.

"Carter's Victoria" is a good variety, which comes in after the champion of England; it is good for a succession, but I do not esteem it so highly as the British Queen.

As far as my experience extends, the "Queen of the Dwarfs," a recent variety, is scarcely worthy of cultivation. Its growth is bushy, producing its fruit singly and unevenly; and however much it may be prized in England, where it originated, here, while we have so many other varieties better adapted to our climate, I intend, for the future, not to cultivate it.

On the 10th of August last, I planted the Prince Albert, on account of its rapid advancement to maturity for autumn use. In the last week of September, the fruit was suitable for the table. The vines were of thrifty appearance, and were much admired. Next year, I purpose planting on the first of August, with the view of having a longer continuance of this fine vegetable. If planted too early, however, the vine is of slender growth, and both vine and pod are liable to mildew; the yield is light, the fruit not well flavored, and when grown during hot weather, the result is apt to be an unsatisfactory crop.

VENTILATION.

Of all the faults of farm houses, perhaps the want of ventilation is the greatest. One would suppose people who live in the constant enjoyment of the free air of the country, would feel the necessity of the same kind of atmosphere within their dwellings, particularly in their lodging rooms. Old-fashioned farm houses, constructed with large open fireplaces, never suffered for want of ventilation; the fireplace acted as a ventilator, and was always open.

Modern-built houses are warmed with hot-air furnaces, or close stoves, often heated with coal to a red heat, by which a great saving of fuel is effected; but it is at the expense of an increased consumption of human life.

It is a notorious and undeniable fact, that the old-times, hardy race of New-England farmers, who used to crack nuts and drink cider around the old-fashioned mammoth fireplaces, so vividly engraven upon our own mind, have passed away and left a puny, pale-faced race sitting around the stoves of modern-built country houses, close-fitting windows, and listed doors, shutting out the pure air of heaven, while man within, after breathing carbonic acid gas for a whole evening, wonders what makes him feel so languid and unfitted for the enjoyment of social intercourse with his family; but, as he is unable to arouse his spirits, he retires to rest in a room heated to the same degree, and just big enough to contain himself and wife, and children, which he closes almost as tight as though it were hermetically sealed; then buries himself in the soft embrace of a feather bed and pillows, and after ten hours of thus tempting death rather than rest, "he wonders what on earth makes him feel so poorly of a morning."

He can read the history of human suffering in the black hole of Calcutta, and easily imagine that death ensued for want of air; but he cannot understand that his own complaint arises from the same cause. The amount of popular ignorance upon this subject is astonishing. The windows of every room, heated by hot air or tight stoves, should always be open at the top. In fact, no room should ever be constructed without permanent provision for ventilation.

Dr. Arnott, an eminent physician and philanthropist, of London, had this subject so strongly impressed upon his mind, that he invented an apparatus for this purpose, called a chimney valve. It is a very simple, yet effective contrivance. A square box or frame, of cast iron is set in the chimney near the ceiling, having a valve so nicely adjusted, that a slight pressure of impure air in the room, will cause it to open, or it may be set open by an adjusting thumb screw. When colored to correspond with the wall, it is hardly perceptible. Ornamental ventilators might be constructed in the ceiling of every room; and in all lodging rooms, they should be made permanently open. The health of thousands of persons is sacrificed every year by the poison of crowded assembly rooms, over heated and ill-ventilated dwellings, and more than all, narrow-contracted, never-ventilated lodging rooms. We shall recur to this subject again.

Rice contains the least fatty matter of any of the cereals, but the greatest proportion of starch averaging about 82 per cent.

VALUE OF DOGS.

A LITTLE girl near Cincinnati was lately seized by one of those abominable brutes, that semi-civilised man still persists in keeping as his fit companion, and her life nearly destroyed, before those, whom her terrific screams brought to her assistance, could extricate her from her perilous situation. The bull dog had seized her by the throat so fiercely, that his jaws had to be pried apart, after his back had been broken, by a blow of a club, that was used to beat him off his human prey.

The blood flowed in streams, and the flesh was so lacerated, it hung in shreds; and the poor child will carry the marks as long as she lives. This is one more item in our *dog account.* We have others.

REVIEW OF PROFESSOR JOHNSTON'S NOTES ON AMERICAN AGRICULTURE CONTINUED.

WE continue the comments which we commenced last month, upon these notes.

It is evident the writer only saw a few of our farm houses, or he would not have said "they are commodious and generally well arranged;" neither would he have said "the kitchen is always the largest apartment in the house." This was notoriously the case in the old-fashioned farm houses of New England, and among some of the substantial old Dutch farmers, as it always should be; but it is equally notorious that many of the modern farm houses have apparently been in one respect modeled after the Capitol at Washington; that is, the architect has made it a study to see how inconvenient and inappropriate, for the purpose, he could possibly construct a building, and how many little miserable, dark passages, and illcontrived little rooms he could crowd within four walls, up stairs and down stairs, and among these, not one could be found suitable for a commodious kitchen. Such is the fact in regard to many a modern American farm house.

The isolated out houses, which seem to strike the writer with so much force, are a peculiarity that is carried to a greater extent in America than in any other country. "The entire absence of all appearance of grain stacks" noticed by the writer, shows he did not extend his travels into the southern nor western states, where he might have seen a score of stacks around a single farmstead, any one of which would fill all the buildings upon the newly-commenced farm. Instead of its being a fact that "all crops of corn and hay are housed," in this country, much the largest portion of all that is grown in the west and south, and the quantity is enormous, never was beneath a roof, however rude. It is to be regretted this excellent writer, who is disposed to give his countrymen so much correct information of ours, could not have seen much more even than he did, in the few months he was with us; and have seen a part of the country, too, that has been but a few years in possession of the all-subduing Anglo-Saxon race, who are driving the red man far away from the ancient haunts of his fathers, and changing his hunting grounds into cultivated fields. No doubt, while undergoing the transition, these incipient farms must have a very unprepossessing appearance to one so accustomed to the highly-cultivated estates, fenced with the neat green hedge rows of England.

The statements in the following sentences are entirely too general, and will not give so correct information as is desirable. He says:

"As may be supposed, vegetation proceeds very rapidly. In the northern states, though the winter can scarcely be said to be broken up till April, barley is generally ready to be cut early in June; wheat is ready towards the end of the same month. Oats are ripe in July; Indian corn in September, and the buckwheat crop immediately succeeds the corn."

Here are a succession of mistakes. The fact is, the area of the United States is too large and too varied in climate, to be comprehended by the inhabitants of a small island. Even the people of one of the states, that harvest wheat and oats in May, can hardly conceive it to be a fact, that in another state of the same Union, the harvest time for the same grain is September. Long after the period when Indian corn is ripe enough for eating in Louisiana, Vermont, New Hampshire, and Maine begin to think of planting. In the above paragraph, the writer says "barley is ready to cut early in June, in the northern states." The above-named states are the northern ones, and their barley is often sown instead of reaped in June. While but little wheat, except that sown in spring is ever raised, and certainly in the northern part of those states, that is cut in September. Oats, in the southern part of New York, may be ripe early in July, while in the northern part they are still green in the latter part of August.

There are some things in the following sentence worthy of comment: "It is scarcely exagerating to say that, after a slight shower during the night, succeeded by a fine, sunny day, you see the crop growing. Certain it is, that, measuring barley stalks in the morning, you will

find in the evening no mean addition to their length. This rapidity of growth causes the crop of oats to be generally a poor one; it grows so rapidly that there is no time for the grain to fill properly. A farmer in the state of New York informed us that with all his care, and in spite of all his knowledge of the crop, (he had been a Scotch farmer,) he could never depend upon a good return. And yet, his meal was fast getting into repute. The Americans are generally fond of oat meal; indeed, it fetches a high price; but yet the supply is exceedingly defective."

The rapid growth of vegetation under the genial showers and hot sun of America is always a matter of surprise to one accustomed to the long, slow growth of crops in England. But is the writer correct in saying "the crop of oats is generally a poor one?" What is a good one? Is fifty to eighty bushels per acre, with a growth of straw which gives an enormous quantity of forage for cattle, a good crop or a poor one? If good, then the crop is not "generally a poor one." Perhaps some of that "Scotch farmer's" Yankee neighbors, who better understand the climate of New York, can beat him every year in the oat crop.

Since when, are "the Americans generally fond of oat meal?" It must be within the last year, if ever, since the first settlement of America. According to our notions, oat meal never will be generally used here. Millions of Americans eat the finest wheat flour, of grain not worth fifty cents a bushel. Other millions eat that sweetest, cheapest, and most nutritious human food, Indian corn, when the average market price is less than one shilling sterling per bushel. None live upon potatoes, though they might, at half that price per bushel. In the same districts, the average price of rich, fat beef and pork, for the last half century, has not been equal to two pence a pound; and sheep are annually butchered by the thousand for the hides and tallow, while the meat is thrown to the hogs to make cheap pork. Do you think people in such a country will eat oat meal? No. They cannot afford it, except by way of *something new*, as a luxury.

The very next sentence, from the same article tells the reason why "Indian corn is the staple commodity of American farms; it is used in all kinds of ways. One variety is taken in its green state and boiled. Its flavor is remarkably fine, and resembles very much that of green peas. Judging from our own experience, we should say that it would take some time for a European to relish the vegetable; it is too sweet and rich for all tastes. The Americans are amazingly fond of it. Indian corn is sown in what is called "hills." Some species grow very high; we have seen stalks ten to twelve feet in height. It is a noble-looking plant. The varieties are very numerous. Dr. Brown, of Philadelphia, enumerates upwards of forty kinds. The editor of the "Maine Cultivator" says that it would be an easy task to make out sixty varieties. The growing capabilities of the various species differ very much. Some spring up quickly, and soon ripen; others spring up more slowly, and ripen later. Some have six or eight rows of grain in the ear, others have as many as twelve and fourteen. In some, the grains are all of one color, in others, variegated—yellow, mixed with red, scarlet, purple, and black. These are, however, very small. Indian meal is much relished throughout the states. Indian-meal porridge, or "hominy," as it is there called, is very delicious, when taken with new milk. Pumpkins are generally grown between the "hills" of Indian-corn plants; they require very little tending, and grow to an immense size. A yard, and even a yard and a quarter, is no uncommon size to be found. These pumpkins are wholesome and nutritious food, both for man and cattle. "Pumpkin pie" is considered a great treat."

Upon this we comment. First, Indian corn is not the staple commodity of American farms. Thousands and thousands grow none for exportation, while other thousands do not grow enough for their own use while engaged in producing the staple crops of American farms, known in commerce as cotton, hemp, tobacco, rice, sugar, wheat, beef, butter, cheese, wool, stock, fruit, grass, and even potatoes, all, and each of which are staple commodities upon some American farms, where corn is only a secondary crop. Did the writer intend to *slur* the "corn crackers" by conveying the idea to his countrymen that America produced but little else; and that the principle human food is Indian-meal porridge, or hommony, or Indian corn in some shape? He says "it is used in all kinds of ways," and might have added, one of which is to send our surplus millions of bushels to feed the starving millions of potato and oat-meal eaters, of a country which boasts of her good farming and productive acres. "One variety is taken in its green state and boiled." So are fifty-nine others of the sixty varieties that might be named; though we prefer that known as sugar or sweet corn, for the very

reason that the writer thinks a European would not; that is, because it is so sweet and rich. But we can assure him that all Europeans soon acquire the taste, and do like "green corn boiled or roasted." The writer says its flavor resembles green peas. According to our taste, of half a century standing, the resemblance is in nothing except that both are sweet. "Americans are amazingly fond of it." And so are the Africans, Asiatics, Europeans, and the inhabitants of the forests and mountains, and islands of the sea, including birds and beasts that walk on land, swim in the water, or fly in the air. All are fond of Indian corn, and some of them are very destructive to the farmer's crops. "Indian corn is *sown* in hills." No, the universal term is *planted;* and as much is grown in drills as hills. "We have seen stalks ten or twelve feet in height." And we have often seen them fifty per cent. higher. Some specimen stalks were exhibited at the state fair, at Syracuse, that were grown in Illinois, eighteen feet long. Much of the corn of the northern portion of our country does not exceed five feet.

"Pumpkin pie is considered a great treat." Is it? Perhaps so, to an Englishman. Certainly not to a Yankee, as they understand the term *treat*, which means something extra and out of the common every-day line of fare—some costly luxury, while that most rich, and in one sense, luxurious dish, pumpkin pie, is one of the most common articles of food in autumn, in all the northern states.

The writer speaks in glowing terms of the quantities of wild berries, and the common custom of giving them with sugar, as a sort of desert to "farm servants," with almost every meal—a name by-the-bye that is given to all laborers upon English farms, who have permanent situations, and a very good and appropriate one, but very unpalatable to some of our democratic, all-men-are-equal sort of people. We wish the writer could have seen some of the *sights* of blackberries that we have met with, particularly in "old clearings" along the Ohio River, where we have seen at one view, hundreds of acres covered with this rich fruit in such abundance, that a thousand hands could make but little impression upon the quantity.

Of another wild fruit he says: "Nothing can surpass the beauty of the hanging clusters of wild grapes to be found in the woods. In some places, they are amazingly plentiful; above and around, on all sides, the graceful pendants are seen. They are, however, very small, and exceedingly sour." So said the fox in Æsop's time. But we say the time was, when we were young, and used to climb after these graceful pendant-hanging clusters along the banks of the Quinebaug, we found them neither small nor sour. What say our friends who fatten upon the Scuppernong and Catawba wild grapes of America? Are they "very small and exceedingly sour," or is this writer just a little mistaken in his description?

"In the state of Ohio, the hazelnut trees are found in the woods in amazing quantities. They grow very low, not much higher than our gooseberry bushes, but they are very prolific." "In the state of Ohio," and by inference the idea is conveyed to English readers that they grow nowhere else, while in fact, they are as common as blackberries in half the states of the Union.

If the writer or any of his readers are troubled with indigestion, we hope they wont eat many "dried apples" cooked after the following recipe:—"Apples for domestic use are first peeled, or pared, (by a machine in most cases,) and cut up into four or six pieces, and strung upon ends, and hung up to dry. They keep for any length of time. By putting these dried parts of apples along with a little boiling water and sugar, a delicious dish is readily obtained, equal in every respect to stewed apples." To cook dried apples so as to render them at all fit to eat, requires several hours of gentle stewing, instead of merely adding "a little boiling water and sugar." When well cooked, they are delicious, either as a sauce or in pies or dumplings; but when ill cooked, or only spoiled with a little hot water, they are no more fit to eat than raw tripe.

There are several errors in the following statement which we will endeavor to point out. "The wages of farm servants vary in different states and localities. We here give a statement regarding them. In a large state, such as New York, wages will vary considerably in different sections; the average is endeavored to be given:—

	Per day. Cents.	Per month. Dollars.
Maine, New Hampshire, and Vermont,	62	12
Massachusetts, Rhode Island, Connecticut,	75	12 to 15
New York,	50	10 to 12
New Jersey,	75	12
Pennsylvania and Ohio,	50	10
Maryland and District of Columbia, (white,)	50 to 75	10
*Virginia, North and South Carolina, Georgia, Kentucky, and Tennessee, (White,)	50	10 to 12
(Colored,)	25 to 40	5 to 10
Alabama and Mississippi,	25 to 30	12 to 15
Louisiana, Florida, and Arkansas,	50	15
Indiana, Illinois, and Michigan,	50 to 75	8 to 12
Iowa, Wisconsin, and Missouri,	75 to 91	10 to 15

The states marked thus* are grouped together, as they present very similar features of position

and distribution of population. They all embrace lowlands and highlands. In the former, slaves perform nearly all the manual labor; in the latter, there are comparatively few slaves, and white labor predominates. In the states further southwest, labor is nearly all performed by slaves, but is more valuable, because more productive, arising from greater fertility of soil." The grouping of these states presents a curious feature to a native. If the writer, or anybody else, can tell why wages in New Jersey should be set down at "75 cents a-day," while in New York and Pennsylvania, lying upon three sides of her, they are only 50 cents, he will unravel a mystery. Our explanation is, the mystery is like many others, when inquired into—it don't exist. The states marked with a * are grouped together on account of "similar features of position, &c." The only similarity as regards wages, is, that they are all slave states. Two of them are great cotton and rice-growing states, and two others grow little, or none; two others grow a small portion only. Virginia is a great wheat state, and Kentucky and Tennessee, great corn-growing states. The greatest error, though not intended to be so understood, yet, as it is worded, cannot well be understood as the author intended it should be, is in the statement that says, "in the former, slaves perform nearly all the manual labor, &c." The antecedent of the word *former*, appearing to be the first-named in the list of states. "Further south, labor is more productive, arising from greater fertility of soil." How far south? In Texas, or some other unannexed state, the others being all named, excepting Delaware, which seems to be so small it is entirely overlooked, and California, which has since become a state. It is a very great error to convey the idea that the southern states have a much larger proportion of fertile soil than the northern ones, for such is not the fact.

THE PRINCESS TRIBE OF SHORTHORNS.

MR. STEVENS stated some time ago, that the Princess tribe of shorthorns traced *further back in the Herd Book, than any others*, which position I thought doubtful. He undertakes to prove it by running back to Tripes by the Studley bull.

On page 41, volume 1st, English Herd Book, you will find, (No. 188,) Dalton Duke, bred by Mr. John Charge; got by Mr. W. Dobson's bull d. by the Studley bull. This bull traces back as far *in the Herd Book*, as any of the Princess tribe, and of course, I am right. I showed, also in my former article, that Mr. Bates had used other blood in his herd besides the Princess and Duchess blood, since 1831. So that I consider this position cannot be reasoned or explained away. It will be seen by referring to Mr. Bates' catalogue of sale, that he had used the descendants of his Matchem cow very extensively.

SAMUEL D. MARTIN.

Colbyville, Ky.

REPLY TO DR. MARTIN.

DR. MARTIN has *unfortunately* selected in the bull Dalton Duke, (188,) a poor weapon to defeat me. He quotes from the 1st volume of the Herd Book. In that volume, page 147, is this: "691 Wetherell and Maynard's bull (see Dalton Duke)." The numbers are of the same bull. Mr. Charge bred Dalton Duke, and sold him to Messrs. Wetherell & Maynard; he was known both as "Wetherell & Maynard's bull," and as "Dalton Duke." A second edition of the first three volumes of the Herd Book was published in 1846, and was edited by Mr. Henry Strafford, than whom there is no better authority; indeed, none so good in England. In this second edition, under the head of, "(691,) Wetherell & Maynard's bull, or Dalton Duke, (188,) is this bred by Mr. John Charge; got by Mr. William Dobson's bull, (218,) d. by the Studley *White* bull (627)." Mr. Strafford both corrected and extended the pedigrees, in his edition, and from information properly derived. On examination of Mr. Charge's pedigrees everywhere in the Herd Book, they will be found to end with a descent from the Studley *White* bull (627); and Dalton Duke descended in the same way. In the first edition, in the pedigree of Dalton Duke, the word *white* was omitted, and the pedigree thus made incorrect, and Mr. Strafford corrected it in the second edition. It is due to Dr. Martin to say, that he could not know this, unless he had the second edition of the Herd Book, which is not probable. So, then, Dalton Duke does not go back in the female line to the Studley bull, (626,) and of course, Dr. M. is wrong, and I am right. I will take occasion here to mention, that the following bulls in the first volume of the Herd Book, are of the Princess Tribe, viz: Bacon's son of Comet, (46,) Baron, (58,) Carlisle, (115,) Cleveland, (142,) Robert Colling's white bull, (151,) Custard, (183,) Foljambe, (263,) Harlequin, (289,) Marske, (418,) Plato, (506,) Simon (590). The following cows in the first volume of the Herd Book, are also of the Princess family, viz: Barmpton, page 169; Belinda, page 178; Blossom, page 187; Brighteyes, bred by R. Colling, page 194; Brighteyes, bred by R. Colling, page 195; Buxom, page 203; Countess, bred by R.

Colling, page 248; Haughton, page 330; Liberty, page 374; Mayflower, page 403, by Robinson's bull. These are named, as their pedigrees in themselves do not show their alliance with this distinguished family. Charles Colling bought of Alexander Hall, the cow Haughton, descended from Tripes by the Studley bull, (626,) and Robert Colling bought of Alexander Hall, the cow Brighteyes, by Hubback, and she descended from Tripes by the Studley bull (626). The above-named bulls and cows descended either from Haughton or Brighteyes. The cow Princess, that has given name to the whole tribe, was a grandaughter of Brighteyes, by Hubback. Besides this Princess family, (which includes all the descendants of Haughton and Brighteyes, both by Hubback,) *there is not a single shorthorn in the world, that can, by known animals, go back in the female line, to the Studley bull.*

In an article written in December, 1845, and printed in February number of the American Agriculturist, 1846, I said of Mr Bates, that "up to the introduction of Belvedere to his herd, he had adhered to his Duchess blood entirely, except in the case of two or three cows put to Marske. * * * * Since 1831 Mr. Bates has used that blood, a union of the Duchess and Princess tribes, *mainly*, and has only resorted to any other in one instance, viz: "Cleveland Lad." In a former article, Dr. Martin quotes this, and in reply, says, that "Mr. Bates used Bertram, Gambier, and Norfolk, neither of them of the Duchess or Princess tribes." I replied that Mr. Bates purged out of his herd all the blood of Bertram and Gambier, except in his Oxford premium cow and her descendants. The terms "adhered to" and "had used," mean *in the use of bulls*, as every breeder well knows. As Dr. Martin quotes me, and as I wrote, it will be observed that I use the word *mainly*. I knew Mr. Bates had used Gambier and Norfolk, and Duke of Cleveland, (by Bertram,) after 1831, and therefore, I said "mainly." But I knew that he had got rid of every drop of Gambier's blood, and of Bertram's, except in Oxford Premium cow; and that after 1831 to 1842, he had not used a bull as a system, except Belvedere, a Duchess bull, or Cleveland Lad. In my remarks, quoted by Dr. Martin, I spoke of the *course* of Mr. Bates breeding, not of the exceptions in the use of bulls. Dr. M. dwells on the exceptions, although I was abundantly protected by the use of the word "mainly," from the criticism he makes on my remarks. When my article of 1845 was written, the fifth volume of the Herd Book only was published, and my remarks applied to Mr. Bates' breeding as shown in that volume; for I knew nothing of it but as shown in the five volumes of the Herd Book; and at that time, my remark was true, for then he was using only the bulls which united the Princess and Duchess blood, and Cleveland Lad. Dr. Martin says, "it will be seen by Mr. Bates' catalogue of sale, that he had used the descendants of his Matchem cow very extensively." All very true, in 1850, but not in 1842, the period back to which my remarks applied; for then he had used only Cleveland Lad's blood of that strain, as I said; and he told me that he parted with Cleveland Lad because he did not like his get, and what I saw of them, justified the remark.

His catalogue contains only three animals got by the descendants of Matchem cow up to 1846, and of these, one is so stated by mistake, as she was not got by Cleveland Lad, but by Duke of Northumberland. The animals on the catalogue "extensively" got by bulls of the Matchem-cow strain, *were all*, save two *calved after* the publication of my article, the position of which Dr. M. attempts to invalidate by this "*ex post facto*" testimony. I was, in 1845, right in saying, that *since* 1831, Mr. Bates had used that blood, "a union of the Duchess and Princess tribes, *mainly*, and has resorted to one other only, viz: Cleveland Lad." After July, 1831, he never used Bertram; he killed or sold all his stock got by Gambier, and he had only three animals got by Norfolk; and he never used a bull of his own breeding, that had Norfolk blood in him. I believe Mr. Bates to have been wrong in his judgment as to Norfolk's blood; and know him to have been right as to Bertram's and Gambier's, for they both did him great harm. The animals in his sale which had Norfolk's blood in them, *were among the best*, while those in the sale which had in them the blood of Bertram, *were immeasurably the worst*; and none had the blood of Gambier.

Now, my dear sir, would not the word "mainly" sufficiently cover those exceptions of Mr. Bates' breeding for fifteen years, in which he used Norfolk *thrice*, and Gambier only once, to anything but steer breeders, while all his other breeding was thoroughly, "a union of the Duchess and Princess tribes," and the Cleveland Lad's?

A. STEVENS.

WASH FOR APPLE TREES—Dissolve two pounds of potash in a pail of water—apply with a brush.

HEN SHOW AND HEN FEVER.

In my letter of last evening, I promised you some further account of the crowing match now holding in the great Boston henroost, where I have spent the day; and now, after retiring to my own room, I will give you my reflections upon it. No opportunity was ever before afforded in America, for so extensive an examination and comparison of varieties, as are here exhibited. The number, as I stated last evening, is

THE GREAT MALAY FOWL.—FIG. 9.

variously estimated from 6,000 to 16,000. The secretary informs me that three fifths of the whole are those overgrown, overpuffed animals known as Shanghae, Chittagong, and Cochin-China birds, and pretty *birds* they are. Some of the first-named, are the most outlandish, ill-

THE BANTAM FOWL.—FIG. 10.

looking, unloveable of all living things I ever saw clothed in feathers—the Ardea minor, sand-hill crane, or turkey buzzard, not excepted. Observing a gentleman whom I recognised as a distinguished friend of all sorts of agricultural improvement, but dead set against humbug, busy with pencil and paper by the side of a coop which contained one of these feather-legged brutes—about the ugliest specimen in the whole lot, I took the liberty of introducing myself, and peeped over his shoulder while he drew the portrait of a fellow, which looked as though he might have been the paternal ancestor of the original Shanghae family. After hav-

RED SHANGHAE COCK.—FIG. 11.

ing completed the drawing, which had a very life-like Shang-*highish* appearance, he gave an extra wink with his laughter-loving eye, as much as

BOLTON GREYS.—FIG. 12.

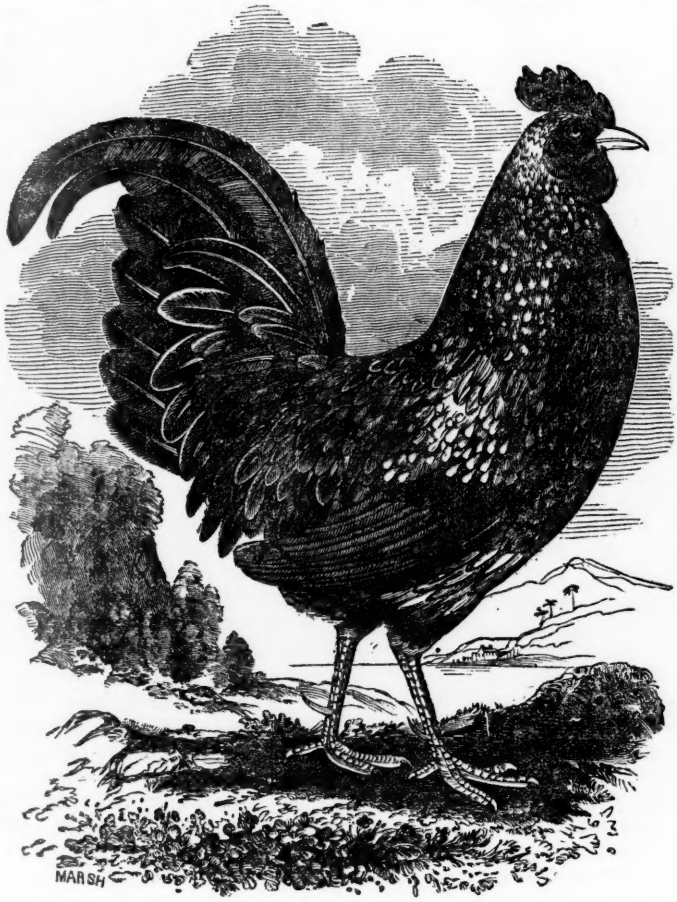
to say "what's a cock without a name," and wrote underneath the sketch, "*First premium Red Shanghae Cock. Weight entire, head, neck, legs, spurs and claws included,* 11 lbs. 13 oz. *Estimated weight of body,* 1 lb. 1¼ oz."!!!

I enclose the sketch, which I hope you will

give your readers, as a *strong* likeness of a red Shanghae cock.

This is the same chap the old farmer objected to yesterday, on account of his ability to stand on the ground and eat corn out of the *garret window*.

Some of the Cochin-China breed might answer pretty well for any person desirous of growing chickens as large as turkeys. I am better pleased with their appearance, than with their taller China neighbors, the Shanghaes. I should very much prefer. They are great layers, though poor breeders; and therefore, are not particular favorites just now, while the *hen fever* rages so high, and the whole country is converted into one great chicken-hatching machine. Among the prettiest fowls in the show are the Bolton greys. They are about the size of the old style of Dominiques, a few of which are also here; and I should think would be preferred by any man in his senses, instead of that long-legged, garret-window, corn-eating



WILD COCK OF INDIA.
FIG. 13.

According to my notions of chicken beauty, the wild cock of India cannot be excelled.

The black Spanish fowls are very noble, military-looking fellows, in their glossy coats, and extremely high, red crests. That, however, is a great objection to them, in a freezing climate The black Polanders, with their beautiful white top-knots, as large as full-blown roses, breed, clothed with dirty feathers down to their ugly heels. The Dorkings and Jersey blues are large enough, and good enough to suit any taste not vitiated by this mania of speculation in hen flesh. Among all this vast variety of fancy fowls, with fancy names, my fancy would not lead me to name more than half a dozen kinds from which to select for my-

self, or friends—and these should be Dorkings, Dominiques, Bolton greys, Jersey blues, black Polands, Java game, and perhaps, for fancy, a few Sebright Bantams.

Among the ducks, those which pleased me particularly were called Spanish—their neat, drab coats, closely fitting their moderate-sized, compact bodies. For beauty, the little wood duck excels any other of the *quack* family—those in the rooster trade included.

There were in the exhibition a few very handsome Bremen and China geese, and several small samples of turkeys; but the fever ran highest for the tallest kind of cocks and hens, both in size and price. The curiosity of visitors was about equally divided between the cage of an American eagle, upwards of twenty-three years old, and a pair of very large swans, belonging to the "old Marshfield farmer," better known among politicians, perhaps, as Daniel Webster.

THE SWAN.—FIG. 13.

The annexed beautiful picture of one of these birds will afford pleasure to your readers, and form an appropriate finis to my hasty account of the great poultry show. SOLON ROBINSON.

Boston, Nov. 14th, 1850.

—

Although our correspondent is *game*, from crest to spurs, we assure our friends he is not a fighting cock; so they need have no fear of his crowing—he will only flap his wings at some of the humbugs of the henroost.

RICE has been cultivated more than 150 years in South Carolina. It was planted there in the year 1693, and has been grown every year since that time.

ARE YOU PREPARED FOR WINTER.

THIS is an important question which should be attended to annually in the general settlement of accounts by all American farmers, before they eat their new-year's dinner. Among other preparations, they should secure, at least, one good agricultural paper for the long evenings of a cold winter. If they do not, they are not fully prepared. The intellect of that man must indeed be dull, who does not profit by reading works devoted to improvement in his particular calling; but more dull is that intellect which neglects or refuses to put itself in the way of such reading. It is not he who works the hardest, with toil and sweat, that performs the most useful labor; but he who works with the skill of science which he has obtained by study, that enables him to use his strength to the greatest advantage.

If you have prepared yourself for winter, you certainly have provided a good stock of books, and papers, in which you can study the sciences of agriculture, horticulture, arboriculture, and that much neglected science, the art and mystery of growing good fruit, as the time of planting trees is rapidly approaching.

LARGE CATTLE IN KENTUCKY.

I SEND you the weight of Mr. Innes' lot of cattle (spoken of in my letter, p. 59). They were four and five-year-olds last spring, about sixteen of them thorough bred; the remainder, from half to thirty-one thirty-seconds; their colors, roan, white, and red and white. As a lot, they are remarkably fine, and their weight is owing to great ripeness of their points. The winter before they were two-year-olds, they were corn-fed from February until April, grazed until next January, when they were fed until April, grazed until November, from which time they were fed until grass, and fed again during the winters of 1849 and '50. On the 30th of October, I saw them weighed, as follows:—

No.	lbs.	No.	lbs.	No.	lbs.	No.	lbs.	No.	lbs.
1	2,740	9	2,375	17	2,250	25	1,990	33	2,180
2	2,710	10	2,435	18	2,333	26	2,140	34	2,000
3	2,625	11	2,390	19	2,245	27	2,150	35	2,100
4	2,450	12	2,350	20	2,235	28	2,182	36	2,180
5	2,440	13	2,335	21	2,330	29	2,230	37	2,135
6	2,480	14	2,300	22	2,390	30	2,150	38	2,130
7	2,790	15	2,300	23	2,275	31	2,045	39	2,000
8	2,470	16	2,275	24	2,005	32	2,050		

JAMES G. KINNAIRD.

Solitude, Fayette Co., Nov., 1850.

CATTLE SHOWS AND FAIRS IN KENTUCKY.

AGREEABLY to promise, I write you in relation to the fairs and stock of Kentucky. After attending your great fair at Albany, I felt more interested than ever in the cause of agriculture and fine stock. Never had I seen so great a collection of manufactured articles, nor so large a number, and so great a variety of stock brought together. On account of facilties for travel and transportation, your fairs are upon a much larger scale, and much more numerously attended than ours. Besides being encouraged to some extent by your state—a policy which every state in the Union should adopt—a much larger number of premiums are offered than by our societies. The two societies in Kentucky are sustained entirely by individual contributions or annual memberships, confined to a few counties in the garden of Kentucky. It is an error too prevalent that only the wealthy farmers, or those who have fine stock, are interested in sustaining societies for the protection of agricultural and mechanical interests. A more correct and enlightened sentiment is gaining ground; and I hope that ere long, the great majority of all the industrial callings will see the importance of such societies.

The Bourbon-county Agricultural Society held its annual fair near Paris, on the 24th, 25th, 26th, and 27th of September. This is the only society in the state which was kept up during the great pressure in money matters—fine stock, and agricultural produce of every description, having fallen so low, that the other societies throughout the state were dissolved. I cannot speak in terms of too high praise of the spirit, enterprise, and liberality of the people of Bourbon. They have been well repaid by the improvement in their stock, &c. A few years since, they purchased a beautiful lot of ground, which they occupy for holding their fairs. The interest in their exhibitions had annually increased, and a great crowd of persons were in attendance. The first day was devoted to the exhibition of domestic manufactures, implements, &c., and is called the "ladies' day," from the fact of the ladies being more directly interested, and a larger number of the fair sex attending on that day. The ladies of Bourbon have become celebrated for their industry, skill, and taste; and this reputation acquired justly, by previous exhibitions of their handiwork was well sustained at this last. Their interest was not confined alone to this day; the ladies of Kentucky are great admirers of fine animals, a fact attested by the presence of several thousand during the days set apart for the exhibition of stock. An amateur band by their fine music added much to the occasion.

The second day was set apart for the exhibition of cattle; the third for horses, and the fourth for Jack and mule stock. An ampitheatre, formed by terracing around a hollow, and capable of seating several thousand, was well filled during the whole exhibition. The stock of the same classes were brought together in a circular ring, for comparison by the judges, while those seated around had a full view. The decision of the judges is publicly announced as soon as made. The exhibition of all kinds of stock was fine. The number of cattle was larger than usual, and as regards a combination of form, quality, and size, equaled any exhibition I had ever seen. The ring of aged cows, twenty in number, would be hard to beat. The premium cow, owned by myself, weighed 1,824 pounds, having suckled a fine hearty calf since the first of March. We are not in the habit of weighing our breeding stock, but I weighed this animal from curiosity. The exhibition of fat cattle, from an aged bullock, four years old and upwards, to a yearling, I do not think the Union could beat. But I will send you a list of the awards, from which you will learn the number of stock exhibited.

The first fair of the Kentucky Agricultural and Mechanic Association was held upon their grounds near Lexington, on the 1st, 2d, 3d, 4th, and 5th days of October. This society was organised last spring, and purchased a lot of ground containing about 25 acres, at a cost of $5,000, erected buildings costing about $3,000, and offered premiums to the value of about $1,200. This amount was raised entirely by individual contributions, without one dollar from the state. I mention this fact, as it might be inferred from the title of our association, that it was encouraged by the state. I wish that the able address of L. F. Allen, before the New-York State Society, could be placed in the hands of every farmer in Kentucky; then, perhaps, the attention of our legislature would be turned to the encouragement of agriculture by a pittance of the public revenue, and the establishment of a board of agriculture. I hope yet, Kentucky will imitate the enlightened example of New York and other states, her population being emphatically an agricultural one. But to the fair, which was similarly conducted to the one in Bourbon.

The first day drew together the largest crowd I ever saw at a Kentucky fair. The extent,

variety, and quality of the manufactured articles reflected much credit upon their exhibitors, especially upon the ladies, and led us to expect much at future fairs. Too much credit cannot be awarded to the ladies of Kentucky, for the interest they feel, and the influence they exert in behalf of our fairs. On the second day, the products of the field, flower and vegetable gardens, orchard, and dairy were brought together. This is a new feature in our exhibitions, and excited much interest. Notwithstanding the lateness of the season, the display was fine, especially of apples, peaches, and grapes, of which several varieties, grown under glass by Mr. H. T. Duncan, near Lexington, attracted much notice. After the award of the premiums, the fruits and flowers were disposed of at auction, at very fair prices, the proceeds going into the treasury of the society.

On the third day, cattle, sheep, and hogs were brought upon the grounds for exhibition and competition, and together, formed a splendid display. Of cattle, none were exhibited but shorthorns. You may remember a conversation between ourselves at the Albany fair, in which you expressed an opinion that Kentucky breeders had not paid sufficient attention to *quality*, and therefore that our stock were deficient in that important essential of a fine animal. I thought of this during the exhibition, and wished that you were present. I think that you would have acknowledged your mistake. Our judges paid due attention to handling. [We are very glad to hear this.—Eds.] The animals of the same class were led into an ample elliptical enclosure, (around which seats were arranged for spectators, a large portion of whom were ladies,) and compared, side by side, the awards being proclaimed by the marshal. The competition, in many instances, was close; and many of the animals exhibited, I believe, would be considered fine, even in old England. [We fully believe this, judging from what we have seen of Kentucky stock.—Eds.] A two-year-old bull, owned by Mr. C. W. Innes, which took the premium at both fairs, of fine form and quality, weighed 1,763 pounds. The show of bulls throughout was most excellent. The premium sucking calf, bred by Mr. George M. Bedford, of Bourbon, sold for $150. The cows and heifers would compare with any I ever saw. The fat cattle exhibited, were very fine. The premium and certificate bullocks classed as aged, owned and fed by Mr. Charles W. Innes, of Fayette, who also received the premium in Bourbon, weighed 2,740 and 2,710 pounds. This gentleman has thirty-nine fat cattle, which, as a lot, taking into consideration finish, quality, fat, and size, cannot, I think, be beaten. With his permission, I send their weights. The premium three-year-old bullock, owned and bred by myself, a thorough bred, by Goldfinder, (2,066,) weighed 2,250 pounds. The premium two-year-old bullock, at Paris and Lexington, owned by Mr. T. Hughes, of Fayette, weighed 2,074 pounds, an extra weight for his age. I may here remark, that these weights are owing more to fine fattening quality, and not to size and coarseness of form. Kentuckians have learned that stock of the latter description are not profitable. Of sheep, there were the Cotswold, Leicester, New-Oxfordshire, Southdown, Saxon and Merino. The four former were classed as sheep for mutton; the two latter, for wool, the classification which I hope will be changed, and a similar one to that of the New-York Society, be adopted—"long, middle and fine wool." A lot of Cotswold wethers, bred and fed by Mr. James S. Matson, of Bourbon, would have weighed 250 pounds, or upwards, each. Of hogs, the Berkshire, Irish, and crosses of the improved breeds were shown. Not so much attention as formerly is paid to the breeding of swine, though a pretty good stock of hogs are kept in this part of Kentucky.

On the fourth day, horse, Jack and mule stock were exhibited; and good judges, who had witnessed many exhibitions, pronounced this superior to any they had ever seen, both as regarded the number and quality. There was the horse of fine blood and finish; the showy, well-formed harness horse; the fine-moving saddle horse; and the heavy-set, powerful draught horse. The competition on Jack stock was very spirited, most of the finest animals in Kentucky being brought together. Mules of extraordinary size were shown. This is considered the most profitable kind of stock, and numbers are bred for the southern market. A neighbor has a large lot of colts which cost, at weaning, $50 per head. The same person sold a lot of yearlings for $80.

The fifth and last day was set apart for the exhibition of professional manufacturers' implements, &c. The number of articles was not very large, but were very creditable to their makers. Our whole fair went off finely, to the gratification of the members of the association, who indulge in the hopes of the long prosperity and usefulness of the Kentucky Agricultural and Mechanical Association.

The prices of fine stock have not materially

changed here. There have been several herds sold this fall, more perhaps than immediate public demand justifies. Fine cows sold from $75 to $100 and upwards. At private sales, double these prices could be had for fine animals. The farmers of this section of Kentucky are becoming sensible of the importance and profit of stocking their high-priced lands with improved animals. Within the last few years, since Durhams have been selling so low, a great change has been made in the stock of the country, large proportions of the cattle now fed for market being mixed bloods.

JAMES G. KINNAIRD.

Solitude, Fayette Co., Ky., Nov., 1850.

REVIEW OF THE JANUARY NUMBER OF THE AGRICULTURIST.

WHEN I look back over the long voyage we have made together, I am surprised to see by the log book, how few squalls we have met with. Whether it is because the "Old Captain" is so popular with the passengers, or whether he is not worth squalling at, I am unable to determine. No matter which, so long as I possess the power of contributing so much to your pleasures as to keep all fair below decks. Now let all hands stick by the ship to the end of another annual voyage; trusting that the old steward will cater well for the ship's table, and that the captain will bring the ship safe to a good port again next December. And now, as the voyage is likely to be a pleasant and profitable one, let us urge our friends, far and near, to embark with us; it will only cost a dollar for a whole year. What a cheap passage! Who that has perused a single number of this paper with care, will say that he has not received a dollar's worth of valuable information? Who will tell me that all my labor to instruct and arouse the readers of the Agriculturist, have been thrown away, or fallen like the seed of a thriftless husbandman upon barren ground? If I could be convinced of that, I would write no more; until I am, I shall continue my course.

Professor Johnston's Notes on American Agriculture.—Is it possible that a man of so much celebrity could have written so carelessly as these extracts indicate? Yet, I do not know why I should doubt; for I have often observed that the English lions in literature, who visit this country, are not very remarkable for their chaste style, nor truthful descriptions. I am glad you have taken the matter in hand of reviewing these notes, and that you are doing it in such an unexceptionable manner. Shall we have the subject continued? [Reviewer will find a continuation in this and the succeeding numbers.—EDS.]

Bad Farming.—These are not the only instances of bad farming in this country. Your correspondent, who sends you his occasional "Rough Notes by the Way," mentioned in the December number, a specimen of bad farming which he saw, that deserves the severest reprehension. So long as the careless slovens among farmers are permitted to raise whole fields of weeds and thistles, to seed their neighbors' farms, as well as their own, and so long as our broad roadsides are kept by law, as nurseries of everything pernicious to cultivation, how can the owner of the adjoining land make a show of good farming? I look upon the waste lands along our public highways and railroads as about the worst specimens of bad farming in America. It is a pity that we have not more travellers taking notes and pointing out our bad farming; for no one will be likely to correct his faults until he sees them. Planting corn before plowing the ground is not worse farming than planting grass and never plowing it afterwards. I have my eye upon a field of as good tillable land as there is in the state, which has been in grass, (so says the owner,) for fifty years. No argument will convince him that he is guilty of bad farming, notwithstanding he expends almost as much manure every year on the grass crop as it is worth. So talk to him about rotation of crops, and the advantage of breaking up that grass sod, and rotting it to make a crop of corn. You might as well talk to him about breaking up his own heart, and planting it with potatoes. "Sir," says he, "that land was laid down to grass by my grandfather, in the year '98; it has been mowed every year since, and while I live, that smooth green sward shall never be broken. Breaking up old meadows is just on a par with your subsoil plowing, as you call it, and some other new-fangled notions, that my son is 'tarnally reading about, in that paper of yours from York." Another instance of bad farming, of which so many are guilty, is keeping about a quarter more stock than can be well kept in summer or winter. When summer feed is scarce, the cattle get over the fence into mischief. When winter feed is scarce, the mischief gets into the cattle, and their hides get over, or on the fence, in the spring.

Economy in Human Food.—The very reason that "many persons are unaware of the great difference of nutritious matter contained in different articles of food in daily use," should be a

sufficient reason with you to furnish them that information in a succession of articles like the present. Besides information concerning the economy of human food, let us be told what is the most digestible in the human stomach; for, after all, no matter what the food costs, that is the most economical, which has the best effect upon the economy of human life.

Raising Geese.—"A goose is more easily raised than any other domestic bird of our experience." Exactly; but a greater goose is he who raises them; and a still greater one is either he or she, who sleeps upon their feathers.

Economy of Using Mules.—"It is still a mooted question"—yes, and always will be. However, let us have the arguments. Only don't get mulish about it, gentlemen.

Steam Plowing.—Every inventor, or rather every blundering fellow, who has attempted steam plowing, must have had the safety valve of common sense hermetically sealed in his infancy; for amidst all the smoke and fog with which the world has been darkened, there has scarcely been a gleam of light scintillating from the brain of all the authors of these wonderful inventions which were about to astonish the world, break up the plow makers, and turn the horses out to grass. The reason is pointed out in this article. Steam cannot be applied to *plowing*—it may be to *digging*.

A Day in Westchester County.—I am vexed with you, Mr. R., to think you should find time to spend so many days here and there, and come so near without even giving me a call. Mary says: "It is too bad, don't you think so father, after so many promises, and when we want to see him so much?" Come and make us a visit, my dear sir, and I will give you a ride over the hills, and through the crooked lanes, among the stone walls and old orchards, and gambrel-roofed houses, and *talk dog* to you; and if you will convince me that the least suspicion of sheep killing rests upon the reputation of Old Bose, overboard he goes, without the least hesitation, with a twenty-pound shot tied to his neck. It is truly surprising to think the owners of these fine old hills, fit only for pasturage, are deprived of half their value annually, on account of a horde of miserable curs, more worthless than any other worthless dogs—the owners always excepted.

Stealing Fruit.—This statement which astonished you so much, does not surprise me in the least. Even here, we occasionally feel the effects of the same intolerable system of pilfering, which is second only to the dog nuisance. There is but one way to put a stop to both. Authorise every person who is trespassed upon, to flog in one case, and kill in the other—not much matter which—and sheep killing and fruit stealing, in the vicinity of New York, will cease to be an every-day occurrence.

Coloring Green Tea.—None but the outside barbarians you speak of, who are already, by nature or education, colored that verdant hue, would buy such tea; so it is of no consequence how much indigo and gypsum they swallow, under the impression that they are taking tea.

Ladies' Department.—The valuable recipes upon this page every month are worth more than you charge for the whole volume. It is surprising where you pick up so many.

Foreign Agricultural News.—This is another page that is always interesting. How advantageous it would be to all of us to read a little more of what our neighbors are doing in the way of scientific improvement of their lands.

Trimming Box Borders with a Scythe.—Why has not this been thought of before? How many just such simple little things like this we might learn every day, if we would only look around among our neighbors with an observing eye. What a volume of truth in the remark of Mr. Hope—"if we expect to be made wise by hearing the opinions of others, we should also be willing to communicate our own opinions." If we do not thus communicate, how can we expect to have our errors corrected? If we do not tell our own practices, how can we ask others to tell us theirs? If we tell nothing, one to another, what a stupidly ignorant set of mortals we could make ourselves appear. Most unfortunately, this is the very character of a majority of American farmers. They are like the lilies of the valley—they toil, but they read not, neither do they think. You need not fear that these remarks will offend them. They will never see them. It is only twenty thousand out of twenty millions of those who are directly interested in the improved cultivation of the soil, who ever read the Agriculturist, and therefore none of that class, who never think, will take offence at what may be said by your

REVIEWER.

EFFECTS OF IRRIGATION.—Water, applied to the soil by irrigation gives many other things besides humidity; it manures, consolidates, deepens the staple, or surface mold, and guards against cold—effects as obvious in a northern, as in a southern climate.

SALT FOR CATTLE AND SHEEP.

In the preface to an article under this title in your last number, you invite arguments in opposition to the doctrine therein advanced. I do not wish to present any argument against the practice; but I will give some facts which may go for what they are worth, to prove that salt is no more necessary to the brute creation, than spirituous liquor is to the human portion.

During one of the winters of my residence upon the western prairies, salt became very scarce and difficult to obtain, even at $10 or $12 a barrel, the price it was universally held at; and many persons who had always considered it as an article of positive necessity for cattle and sheep, were obliged to dispense with the use of it for several months. One acquaintance of mine, who is a very observing man, found his cattle required much less water than in any previous winter, and actually kept in better condition with the same feed, than during the seasons they had all the salt they desired. He came to the conclusion that cattle, when fed with an abundant supply of salt, in winter, are inclined to drink more cold water than is beneficial to their health. His cattle never wintered better than they did that year, nor were more free from disease.

During several summers, I have had cattle running upon the prairie, that never tasted salt from the time they left winter quarters in the spring, until brought up again in the fall; and I never have been able to see the least difference between such, and those that had all they desired every day through the season. Certainly, better beef never was eaten than I have butchered, entirely grass fed, without salt.

I had always been very careful to salt my sheep just as much as they would eat, and considered it quite necessary to their health, until it so happened, one summer, that the biggest part of the common flock came to be owned by my neighbors, who thought as my sheep always got plenty of salt, it would be no more than neighborly to let theirs eat with them. But I thought proper to let the whole lot try the experiment of a long feed upon fresh grass, and I certainly never have had a more healthy flock than I did that year. There are several other observations I made, which have inclined me to the opinion that cattle and sheep can do without salt, just as well as wild deer, goats, and buffaloes; that the taste for salt which all animals manifest, is like some of the apparent natural tastes of numbers of the human family—more artificial than natural—more acquired than necessary.

It is a fact worthy of notice, that the Rocky-Mountain hunters who had been used to the stimulant of salt all their previous lives, and looked upon it as an actual necessary, instead of a luxury, have not only learned to do without it, but actually grow fat and enjoy better health than they did in civilised life. It is, therefore, a mooted question, whether salt is at all necessary for man or beast. SOLON ROBINSON.

ENGLISH RAY GRASS AND ITALIAN RYE GRASS.

I SEND you a specimen of rye-grass seed raised from seed purchased of you. It is a mixture of English and Italian. I have caused to be planted some twenty-five acres mixed with clover. The Italian comes forward rapidly, growing seed the first season. The English does not yield seed until the second year. The English I prefer for lawns, and to mix with other grasses. It is a beautiful grass, of a dark-green, and very glossy, and I presume will remain here, as in England, for years, without running out. The Italian is of a much lighter green, although a coarse grass, and will run out in two to three years. It yields a much greater burden of grass, per acre, than the English. On very rich land, two heavy mowings a season may be made. Both make excellent hay for horses or horned cattle; but if severely pastured, the stock are so fond of it, that they will continue to eat it very late in the season, and are apt to pull it up by the roots.

Both bear the winter better than most of our other hay grasses, and continue green till very late in the year. At this time, while I write, I am surrounded with it, as green as in the summer; and seed planted twenty-five days since, is now up and growing uninjured by several severe frosts, which have been upon it. Some of the crop of seed sent you, was planted about the 10th of August, with turnips, and the ground is now covered with a mat of it, six to eight inches long. This is in clayey land, and rather wet at this time.

I also deem it one of the most valuable of grasses; and when we shall properly understand it, I think no farmer will be without it upon his land. The Italian is extensively used for soiling, in Europe, and I take the liberty of sending you an extract from the speech of the Earl of Erne, at Lisnaskeigh, in Ireland, to his tenantry, in September last. Speaking of the use of tanks for liquid manures, which, by-the bye, he very highly recommended, he says: "You will hardly believe me when I tell you that I saw upon Mr. Kennedy's farm, in Ayrshire, Scotland, land which produced five good

cuttings of Italian rye grass, amounting, in weight, to between 30 to 40 tons per Scotch acre, [our readers will bear in mind that the grass was weighed wet; perhaps it would not have been over five tons dry. A Scotch acre is equal to about 1¼ acres English.—EDS.], enabling him to keep six cows to the acre, by house feeding; also, 20 sheep to the Scotch acre. But you should have large tanks to keep the liquid manure in until it decomposes and ferments." I would ask, why cannot we, too, do it?

CHARLES R. ALSOP.

Middletown, Conn., Nov., 1850.

A JAUNT IN OHIO.—No. 1.

ON the last day of September, 1850, I landed from on board steamboat, at Sandusky city, favorably located on the bay of that name, near the southwest end of Lake Erie, and the terminus of the Lake-Erie and Cincinnati Railroad. It was thirty years since I had last seen the place. Thirty-two years ago, I knew it with a single log cabin and a framed warehouse, on the margin of the water, built there for the purpose of receiving the casual goods which arrived at that early day from Albany, via the Mohawk River, Wood Creek, Oswego, Niagara, and Lake Erie, before the construction of the Erie Canal.

Sandusky was then "O'Gont's Place," so called, after an old French trapper, who sojourned a part of his obscure life at that pleasant spot. It was a wild, lonely yet cheerful place in 1818; a few scattered brushwood, patches of wild grass, an oak opening, spots of bare lime rock now and then cropping out, a spring or two of water gushing out of the rocky bank next the bay, where I have often slaked my boyish thirst, after a weary travel among the woods which separated me from my log cabin, a few miles distant. A fine stretch of bay to the left, some twenty miles inland, parallel to the lake, a glimpse of Lake Erie, blue and boundless to the right, with a point of Cunningham's (now Kelley's) Island, shutting off a part, the peninsula in front, woods in the back ground; and that comprised the scenery of the now city of Sandusky, then, on paper. I found it altered only by the clearing of a portion of the forest, and the erection of a thriving, well-built town of 4,000 inhabitants, the terminus of two railroads, and teeming with the promise of a great, commercial city in future.

Taking the morning train of cars for Cincinnati, we passed rapidly into the interior, and on the route of the road, a flat, monotonous, and painfully-straight course, leaving the farms and villages, principally, either out of sight, or so far distant, as to hardly be recognised; yet, sufficiently distinct to show that it is a fine agricultural country, prolific in corn, wheat, and grass; yet rather slovenly cultivated, with an occasional exception, and passing many a field of limestone opening, which I was informed had harvested thirty to fifty bushels of wheat to the acre the past season, an uncommonly bounteous one, even for this region. The corn looked slovenly; yet it had a good growth, but full of weeds, which I learned was caused by an uncommonly wet weeding season, preventing in many cases, the usual cultivation. The fruit trees were luxuriant, wild in too many cases, for want of pruning, and the apples hung in ropes and clusters on the trees, and covered the ground beneath. But few of them appeared to be grafted. The peach trees were exceedingly thrifty and luxuriant—the fruit mostly ripened and grown, and no disease cankering nor infesting leaf, bark, nor root. The people literally lived like "pigs in clover."

With the exception of the wood and water stations, an occasional small freighting depôt, with a post office and a few surrounding buildings in a fertile country of oak openings and prairie and forest mixed, the only town for the first forty miles, is Tiffin, the county seat for Seneca. Tiffin is a smart town on the east bank of the Sandusky River, well built and thriving. The country about here was chiefly forest, in its original state. There are now many farms along the road, which still maintains its everlasting, straight, monotonous course, occasionally passing a new and uninteresting village, until it reaches Belle Fountaine, the county seat of Logan, a stirring town of a thousand or fifteen hundred people, and a point of transit for much farm produce and merchandise. A few miles further on, is West Liberty, where the road first strikes the valley of Mad River, one of the richest and most fertile, agriculturally, in the state. Here opens a fine farming country with broad cultivation, great crops of corn and wheat, and a commencing show of the fertility and abundance of Ohio. The farms have long been cleared, the buildings generally good, have a neat and tidy appearance, great fields spreading out on all sides; and although but few of them immediately on the road, yet showing grandly on either side, in its immediate vicinity. Occasional herds of well-bred cattle were seen in the pastures; the corn was mostly cut up and neatly shocked, while

many of the fields where it stood, were some in wheat, which was well up and promising.

Next comes Urbana, of which more hereafter. Passing rapidly through the same broad, fertile, and interesting country, along the Mad-River district a mile or two, the expansive bottoms of which, in many instances, lay unproductive for want of slight ditching—a most lamentable neglect, and a vast waste of capital—we reached Springfield, the court and market town of Clark county, one of the best and richest farming counties in the state. This is a fine town of perhaps 4,000 people, well built, with a show of considerable wealth, enterprise, and business. It lies on the Buck Creek, a beautiful, clear stream, running over a bed of clean limestone gravel, which last material is largely intermixed with the soil, and imparts to it its great fertility. In the neighborhood of this town, is a Lutheran college, with handsome buildings and grounds, in a flourishing condition; and many grand farms, with good and tasteful buildings—a delightful neighborhood, if I may judge from its appearance. The chief fruit along this valley is the apple, which abounds in great luxuriance. The peach grows well, but is only a casual crop, being on an average of full two years in three, cut off by the spring frosts. But the Catawba grape grows well, and is considerably cultivated as a table fruit, and is attracting attention for the manufacture of wine, for which it is admirably adapted, making a grateful hock-like beverage.

A few miles further on, are Yellow Springs, the chief watering place for this region. The springs possess valuable medicinal qualities, and are much resorted to in the summer, by invalids and pleasure seekers. Here are well-built boarding and bathing houses, and hotels, and the attractive residence, also, of William Neff, Esq., the chief proprietor of the place; who, among his other pursuits, has been for many years engaged in breeding fine herds of shorthorn cattle. He lived many years in Cincinnati, where he was an extensive merchant, but now resides mostly at his country house in this village. His cattle are at present, chiefly in Illinois, where, in connection with his son, he is farming largely in grazing and breeding stock. In this neighborhood, I saw long lines of Osage-orange hedge, which grows well. It had a beautiful appearance, and, with abundant clipping and care, may make a substantial enclosure. Here the railroad strikes the valley of the Little Miami, a narrow and fertile, yet not over-interesting stretch of country, lying along a lazy, puddly stream, with every now and then a low, shiftless-looking mill dam, which turned its listless waters into quite as lazy a running grist or saw mill; with here and there a carding machine and fulling works, by way of variety; and a "still" every few miles, with a long row of pig pens cunningly constructed along a shelving bank, to enrich the drinking waters of the good people of Cincinnati and New Orleans, and relieve the proprietors from the labor of carting the manure to the waiting corn fields adjoining. A precious piece of economy in agriculture!

Soon after striking this valley, and before the above remarks will generally apply, lies the fine and thriving town of Xenia, the capital of Green county. Here the Columbus Railroad intersects the Cincinnati and Sandusky line, and joins it to the Ohio River. Xenia is the chief point of storage for the produce of this region, both for the lake and river markets; and large quantities of merchandise are here distributed for the neighboring country, a business town, of perhaps 2,500 inhabitants. Hence, down, the railroad is altogether confined to the immediate river bottoms, away from the country roads, and the best farming neighborhoods. There are, however, occasional fine farms stretching down to the river, with broad fields and excellent crops of corn, meadows, and pastures. There are magnificent woods of grand old trees, throwing their stately branches and tops over the lazy water, and interspersed along the banks and hill sides, with the low and beautiful pawpaw, its graceful yellow leaves, lighting the deep green of the forest, with a cheering brilliancy. Little villages, freight and passenger stations, wood and watering places for the locomotives, occur every few miles along the valley; and further down, the bottoms widen and the corn fields grow larger, and the buildings stand thicker, until the still broader valley of the Ohio opens upon the view, flanked in the distance by the Kentucky hills; and at once, you emerge into the deep gorge of the Ohio, and wind your way down some five or six miles through motley congregations of small farmeries, cabbage gardens, boat yards, furnaces, &c. Next to the river and on the hill sides close by, an occasional vineyard or orchard; getting more and more into the dirt and smoke, and bustle of the great trading and manufacturing mart of the Ohio, till you bring up at a most cramped, inconvenient, and awkwardly arranged depôt, surrounded by furnaces, coal yards, water works, boat yards, and noisome smells, in the upper end of the city of Cincinnati.

Here, perhaps, I had better stop, as I have

already given you an account of the cattle show held here for 1850 [see last December number of the Agriculturist, page 374]; but I found so much that was new to me, and although amidst some unpleasant surroundings, in a small way, so much that was agreeable, in the enterprise, industry, and thrift of the people with whom I became acquainted in my short sojourn in the city, that I venture to give a short note or two of what I saw in and about this large populace, and in some parts, exceedingly dirty town.

A Visitor.

EXPERIMENT WITH CORN—DEEP PLOWING AND GREEN CROPS.

The ground upon which the experiment was made was as near alike, and prepared as near alike as could be. The corn was planted the 4th of May, three by five feet. That which was plowed, was plowed the widest way only. Four rows were plowed exclusively with the coulter, from eight to ten inches deep. Plowing repeated four times, at suitable intervals. The next four rows were cultivated entirely with the hoe. The balance was plowed as is usual here; first throwing the earth from, and then to the corn, and plowing four times. All was kept clean throughout the season. Two rows of that cultivated as usual, when gathered, weighed 42 pounds. The next two, hoed corn, weighed 43¼ pounds. The two other rows of hoed corn weighed 43 pounds. Two rows of coultered corn, side by side with the preceding, and having the same number of hills and ears of corn, weighed 45¼ pounds. The hoed corn was nearly prostrated twice by wind and rain. I had to set up the greater part of it, just before and just after it tasseled. The coultered corn suffered hardly half so much as the hoed. The residue suffered comparatively little. These are the facts. Deductions are for you and your readers. The quantity raised on the ground is of no consequence.

I conducted various other experiments with corn, but do not deem them of sufficient interest to burden your columns, nor bore your readers with them. These little things are interesting to me, however, and I always have some such under headway.

I bookfarmed that famous bottom I spoke to you about, and made a fair crop of corn. Last year, it took sixty of the largest ears to shell a bushel; this year, forty-eight do it. This bookfarming makes me the subject of great ridicule and merriment. For instance, you advised us, last spring, to plow deep and pulverise well. I did so, but was laughed at therefor. You advised the sowing of corn broadcast. I sowed something like four acres. This threw a great many neighboring diaphragms into convulsions and cachinations were rife and boisterous there at. So well am I pleased, however, that I shall give them an opportunity to split the larynx outright another year. The quantity of fodder produced was enormous, besides a *pretty considerable sprinkling of corn.* You apprised us that it might be well to sow rye for early grazing, soiling, &c., next spring, and I have done so. It is *too green* to laugh at now. You instructed us to sow twelve quarts of Timothy seed per acre. I did it. and if they do laugh at that, it is mighty green. [Fearing that some of our readers may not understand the full meaning of the word "green" as here used by our correspondent, we explain, that the Timothy and rye sowed by him, agreeably to our directions, have already covered the land with a thick *green* herbage, and give promise of uncommonly large crops of hay and grain.—Eds.]

To renovate land, you inculcate turning in green crops. I capsised all my clover—masticators displayed themselves of great length and breadth. Of all the green things, the wheat on that clover land is the greenest; and rather too green to laugh at. The land having been put in order by plowing, harrowing, and crushing, the wheat was plowed in about three inches the first of September, and I harrowed it the first of October. It looks very well.

U. B. Oglesby.

Boonville, Mo., Dec., 1850.

An Improved Sheep Hopple.—The only difference between this and the ordinary wooden hopple, consists in having the bar project forward of the fore foot about ten inches and pointed. In attempting to climb a stone wall, this will catch and throw the sheep back. A Mr. Odell of Westchester county, says this is the only way he can keep some unruly wethers within his enclosures. When sheep are hoppled, whether with a wooden bar or strap, they should be often examined to see the leather does not cut the leg, and so make necessary restraint a cruel torture.

To Prepare Anchovies.—To a peck of sprats, add two pounds of salt, one pound of saltpetre, two ounces of prunella, three ounces of Bay salt, a few grains of cochineal, well pounded together in a mortar. Pack down a layer of sprats, and sprinkle on the mixture, and then the sprats again, and so on; press hard and cover close for six months.

Ladies' Department.

CHEAP LUXURIES.

Sunshine and showers, which beautify all nature, may be enjoyed by nearly all for nothing. An invigorating scene at sunrise or the gorgeous American sunset are equally cheap. In winter, the luxury of a few house plants may be enjoyed for a trifling expense. "A flower in your window sweetens the air, makes your room look graceful, gives the sun's light a new charm, rejoices your eye, and links you to nature and beauty. You really cannot be altogether alone, if you have a sweet flower to look upon, and it is a companion which will never utter a cross thing to anybody, but always look beautiful and smiling. Do not despise it because it is cheap and everybody may have the luxury as well as you. Common things are cheap, and common things are invariably the most valuable. Could we only have a fresh air or sunshine by purchase, what luxuries these would be; but they are free to all, and we think not of their blessings. There is, indeed, much in nature that we do not yet half enjoy, because we shut our avenues of sensation and of feeling." In summer, a rose bush under your window, or a honeysuckle climbing over the door, and making the whole house fragrant with their flowers, cost nothing, and yet what a luxury of enjoyment they afford.

Fried Potatoes.—This good old-fashioned dish, which used to delight us in boyhood, has gone so much out of use, that the following directions for preparing it may not be amiss:—Take good sound potatoes and pare off the skins, and cut them into slices; have a pan of hot lard ready, immerse them in it, and fry them over a brisk fire until a portion of the batch becomes partially crisped; drain off the fat through a colander, and serve them as hot as possible, seasoned with a little salt only. They must be eaten hot, or they are worthless. Sweet potatoes cooked in the same way are delicious.

A Fine Hash.—Take any cold game or poultry that you have—you may mix several kinds together—some sausages, of the best sort, will be an improvement. Chop all together, and mix with it bread crumbs, chopped onions, and the yolks of two or three hard-boiled eggs. Put it into a saucepan with a proportionate piece of butter, rolled in flour. Moisten it both with gravy or warm water, and let it stew gently for half an hour.—*Exchange.*

To Make Maple-Sugar Custard.—Make a crust as for a custard in the ordinary way. Take of maple sugar, one pound; butter, half a pound; milk, one pint; one egg; one nutmeg; and a tablespoonful of flour. Spread the sugar over the crust, and then the butter on top of that; beat up the egg with the nutmeg and milk, which pour over the sugar; dredge or dress on the flour with grated nutmeg, and bake in an oven or stove.

Valuable Washing Recipe.—Add one gill of alcohol to a gallon of soft soap, and mix intimately. Apply the soap to the clothes in the usual way and let them soak some hours in the suds; then rinse out with very little labor of rubbing. We obtained the above from Mr. Cornish, steward of the Insane Hospital at Hartford, who says there is not an inmate of the establishment but what has reason enough to appreciate its value.

Frying Fresh Fish.—Never put them into cold fat. Let the lard, butter, or oil be first heated to a degree just short of burning, and then plunge in the fish—the greater the quantity of fat, and the quicker the fish are cooked, the better they will be, as they give off their own fat instead of absorbing that in which they are cooked.

Blowing out a Candle.—There is one little fact in domestic economy which is not generally known, but which is useful as saving time, trouble, and temper. If a candle be blown out holding it above you, the wick will not smoulder down, and may, therefore, be easily lighted again; but if blown out downwards, the contrary is the case.—*Exchange.*

To Clean Silks.—Take a quarter of a pound of soap, a teaspoonful of brandy, and a pint of gin; mix all well together. With a sponge or flannel spread the mixture on each side of the silk without creasing it; wash it in two or three waters and iron it on the wrong side. Thus treated, it will look as well as new.—*Exchange.*

Dyspeptic Boarding House.—The best *board* in the world for dyspeptic young ladies, is said to be the *wash* board. It gives them strength of muscle, an exuberance of spirits, a good appetite for their meals, and supercedes the necessity of painting their faces.

Foreign Agricultural News.

By the arrival of the steamer Washington, we have our journals to the 21st of December. The only news of any importance was a slight advance in cotton.

Remedy for the Gripes in Horses.—We need never loose a horse by gripes, provided we administer, when first attacked, 1 oz. each of spirits of nitre and paregoric, in a quart of warm water.

Strength of Vitrified Clay Pipes.—Those of three-inch bore, lately tried at the works at Glasgow, stood the pressure of a column of water 230 ft. high, and those of four-inch, 140 feet, without breaking. These pipes are said to be much cheaper than lead.

Remedy for Cattle Attacked with Disease in the Lungs.—Moderate bleeding, powerful blistering to the sides, with setons in the brisket, and strong sedatives internally.

The Object of Mixing Charcoal Dust with Fresh Urine.—Ammonia is the product of the putrefaction, which soon takes place in the urine; and the propriety of adding charcoal dust to the fresh liquid depends on the advantage of retaining the volatile products of that decay from its earliest stages.

Pigs Affected by Cold.—Fine-bred pigs, having little hair, must have a much warmer temperature than sheep. When pigs huddle together, it is a sure sign that they are not warm enough. Cold, stopping the circulation in the skin, drives the blood to the internal organs, and causes inflammation.

Comparative Cost of Different Kinds of Pipe in England.—Suppose that 1½-inch bore pipe is required, the cost will be about 1*s.* 10*d.* per yard, cast-iron jointed; 3*s.* 3*d.*, glass-jointed; 3*s.* 3*d.*, gutta-percha; 4*s.*, lead; and 1*s.* 3*d.*, glazed stoneware pipe, 2 inches diameter, with cemented joints. These prices will vary a little in different localities.

Interesting Physiological Fact.—It is remarkable, as among the millions of other proofs of the wisdom and provident care of the Supreme Being, that in the milk of a female, who has a fractured limb, the lime is reduced in quantity until the fractured bone is again united. The eggs, also, of a fowl, which has a broken limb, are without shells until the broken parts are again united.

Comparative Strength of Water Pipes.—Gutta percha, where expense is no object, may be used; it will bear a considerable pressure. A ¾-inch bore tube, ⅛ inch thick, has been tested with about 750 feet pressure, without failing. Glass pipes will bear a pressure that is almost incredible. From experiments made at Nailsea, glass tubes 3 feet long, varying from 1⅛ to 2¾ inches internal diameter, with thicknesses of from $\frac{1}{11}$ to $\frac{3}{16}$ of an inch, bore pressure of from 1,500 to 3,600 feet.

Manure for Potatoes.—I see in your paper, (quoted from the Economist of October 19th,) a method of preparing manure for potatoes, according to which the dung, (stable dung and vegetable compost,) was mixed with one fourth or one fifth of quicklime. Is not that an excellent way of getting rid of the ammonia, equal to the bleaching system, by exposing it to the sun, wind, and rain?—*Timothy Clod, Forfarshire.* [Yes. But as ammonia is undoubtedly injurious to the potato crop, the object of the writer is, we presume, to do exactly what you described.]—*Gardeners' Chronicle.*

Ancient Farming.—It is stated in an article on this subject, in the July number of the London Quarterly Review, that the average product of wheat in the home provinces of Rome, in the time of Varro, was 32 bushels to the acre, far more than the present average in Britain, and probably three times as much as that of the United States.

Experiments on Irish Peat.—When Mr. Owen's experiments upon Irish peat were first introduced in the House of Commons, the subject was treated with ridicule; but lately, extensive operations have been carried on, and an exceedingly profitable field for speculation has been opened. From 36,500 tons of peat, at 2*s.* per ton, the "Times" states that the following produce has been realised:—365 tons of sulphate of ammonia, at £12 per ton, £4,380; 255 tons of acetate of lime, at £14 per ton, £3,570; 19,000 gallons of naphtha, at 5*s.* per gallon, £4,750; 109,500 pounds of paraffine, at 1*s.* per gallon, £5,475; 73,000 gallons volatile oil, at 1*s.* per gallon, £3,650; 36,000 gallons fixed oil, at 1*s.* per gallon, £1,800. Making a total of £23,625. The profit, after deducting the expenses of the sulphuric acid used in the manufacture, the wages, labor, cost of sending to market, &c., amounts to £11,908, or more than 100 per cent. upon the outlay.—*Agricultural Gazette.*

Great Agriculturul Movement in Growing Flax in England.—A company comprising many of the leading nobility and land owners, is seeking from government a Royal Charter to give encouragement to agriculturists and farmers to bring into immediate cultivation, at least one hundred thousand acres of land, for the production of flax straw; which substance the promoters of the charter have, (by new and peculiar processes never hitherto adopted,) the power to convert into a fit state to hold competition with the best flax imported from foreign nations, without the aid of steeping, kiln-drying, nor mill scutching. The machinery by which the fibre is separated from the stalk, without steeping, is of a very simple and inexpensive kind, requiring no previous knowledge to work it. The unsteeped flax is uniform in strength, and free from stains, so that all after processes of manufacturing and bleaching may be conducted with a facility and exactness not hitherto attainable.—*Ibid.*

Heating by Steam.—This is by no means a modern invention. In 1745, Col. William Cook improved upon a plan of heating hothouses, suggested by Sir Hugh Platt, many years before, and in 1755, we find him recommending it as applicable for the forcing of fruit.—*North-British Agriculturist.*

The wheat crop in Nova Scotia is an entire failure worse than in any former year.

Editors' Table.

Mr. A. Sherman, our agent, will spend most of the month of February in North Carolina, and the month of March in Southern Virginia and Maryland.

Mr. Solon Robinson, our assistant editor and agent, is now in Florida, and can be addressed at Tallahassee, as late as the 20th of February. He will then slowly return north by the way of Savannah, Charleston, Wilmington, Richmond, and Norfolk. He will arrive at the latter place about the 15th of March, and spend the residue of the month and part of April, in Lower Virginia.

Brazilian Tea.—We have received from Dom L. H. F. d'Aguair, Consul General of Brazil, near New York, several packages of tea, grown in that empire, the quality of two samples of which (Nos. 9 and 16,) in our judgment, are equal, if not superior, to that of China. Other samples, (Nos. 2, 4, and 6,) we suspect, from want of sufficient manipulation, were not so agreeable to the taste. The consul says: "We are trying the cultivation in the empire, and according to the success obtained, it promises to be a new acquisition to the country, as well as a source of wealth; and, should the success be equal to that of the coffee, the day will not be far distant when we shall be able to furnish your country, (the United States,) with two beverages so much in use, both of which have been so useful to the cause of temperance." We congratulate our continental brethren of the southern hemisphere in the successful cultivation of this useful and almost indispensable luxury, and trust that an increased supply will tend to the advancement of the agriculture and commerce of the two countries, and will prove to their mutual advantage.

Great Sale of Milch Cows.—We desire to call attention to Mr. Bell's advertisement of the sale of cows to take place on the 25th of next March. Mr. B. has been for years selecting and breeding with a direct reference to milking properties, and he has now got together, probably, one of the best herds in this respect, to be found in the country. The sale will be positive, and we trust that all those in want of first-rate family cows, will not fail to attend it. For particulars, as to the breeding of these animals, see advertisement.

Southern Sheep Husbandry; by H. S. Randall. Mr. Saxton has purchased the entire edition of this popular book, of the publisher.

Stephens' Book of the Farm.—This valuable work is now offered, complete, by C. M. Saxton, 123 Fulton street, at the reduced price of $3.50 per copy, with paper covers for mailing, or $4 neatly bound. Every farmer and every rural library should possess this work. The quantity of valuable information to be had for a small sum is astonishing.

Agency at Pittsburg, Pa.—Mr. Henry McCormick is appointed agent for the Agriculturist at this place. He will also keep on hand a full supply of C. M. Saxton's agricultural books, at the publisher's prices.

The Eclectic Magazine of Foreign Literature, W. H. Bidwell, editor and proprietor, 120 Nassau street. Of all the foreign republications, the Eclectic, in our judgement, is immeasurably superior. The good taste of the editor leaves out all trash and the more local articles, selecting those only which have an immediate interest among us or are of permanent value. It is, therefore, nearly as valuable to bind up at the end of the year, to occupy a place in the library, as to adorn the centre table from month to month. Each number contains 144 pages of large octavo, in double columns, making 1,728 pages a year.

Agriculture in Switzerland.—Dr. J. V. C. Smith, the editor of the Boston Medical and Surgical Journal, has been travelling in that mountainous region of the world, and in one of his letters, notices some of the agricultural products of localities where the best efforts of the husbandman produce but a poor return in grain or potatoes. Hence the production of crops unknown to American farmers. One of these is poppies, which are grown by thousands of acres; not for opium, but the seed, from which a beautiful transparent oil is produced, which is much used in house painting, and is considered far superior to linseed oil, because it is almost colorless, and when used with white lead, does not turn yellow like the oil of flaxseed, when exposed to the light. Poppies can be grown upon soil too sandy and light to produce flax. Why should not this new crop be sown in this country? Who will try it?

Southern Rural Almanac and Plantation and Garden Calendar for 1851, by Thomas Affleck, Washington, Adams county, Miss. This is a neatly-executed pamphlet of 132 pages of highly instructive matter, which is useful to every planter in the South. Several southern staples are therein treated at considerable length and with much judgement and ability, and we hope to hear that the work has a wide circulation. We are glad to see that the enterprise commenced by Mr. A. some years since, the publication of "The Plantation Record and Account Book," is extending and likely to be generally adopted. We are also pleased to see that Mr. A. has commenced an extensive southern nursery; and from his taste, energy, and experience in this department, we anticipate for him entire success in his undertaking. We are certain, at least, he will deserve it.

Phosphate of lime.—We have it in our power, at last, to record the discovery of an extensive deposit of phosphate of lime, at Crown Point, on the north shore of Lake Champlain. It is said that 92 per cent. only of the rock is phosphate, but even this amount will render it a valuable acquisition for the farmer's fields. In some of our previous volumes, we noticed the absence of any information on this subject in the extended report of the state geologists, and then predicted we should ere long find some deposits of this valuable manure which they failed to detect. We shall hope for the speedy discovery of still richer, and to us and the farmers of the Atlantic seaboard, more accessible accumulations of this long-stored treasures.

Review of the Market.

PRICES CURRENT IN NEW YORK, JANUARY 13, 1851.

ASHES, Pot,	℔ 100 lbs.	$5.50	@	$5.56
Pearl,	" do.	5.62	"	5.69
BALE ROPE,	" lb.	9	"	11
BARK, Quercitron,	" ton.	33.00	"	35.00
BEANS, White,	" bushel.	75	"	1.50
BEESWAX, American, Yellow,	" lb.	20	"	26
BOLT ROPE,	" "	10	"	11
BONES, Ground,	" bushel.	45	"	55
BRISTLES, American,	" lb.	25	"	65
BUTTER, Table,	" "	15	"	25
Shipping,	" "	9	"	15
CANDLES, Mould, Tallow,	" "	10	"	13
Sperm,	" "	25	"	50
Stearine,	" "	25	"	30
CHEESE,	" "	5	"	10
COAL, Anthracite,	2,000 lbs.	6.50	"	7.00
CORDAGE, American,	" lb.	11	"	13
COTTON,	" "	12	"	16
COTTON BAGGING, Am. hemp,	" yard.	15	"	16
FEATHERS,	" lb.	27	"	35
FLAX, American,	" "	8	"	9
FLOUR, Sour,	" bbl.	3.62	"	4.12
Ordinary,	" "	4.18	"	5.00
Fancy,	" "	5.25	"	6.75
Buckwheat,	" "	—	"	—
Rye,	" "	3.75	"	3.88
GRAIN—Wheat, Western,	" bushel.	1.00	"	1.25
" Red and Mixed,	" "	90	"	1.10
Rye,	" "	75	"	80
Corn, Northern,	" "	69	"	74
" Southern,	" "	68	"	72
Barley,	" "	88	"	93
Oats,	" "	48	"	53
GUANO, Peruvian,	2,000 lbs.	47.50	"	50.00
Patagonian,	" do.	—	"	40.00
HAY, in Bales,	" 100 lbs.	70	"	75
HEMP, Russia, Clean,	" ton.	210.00	"	220.00
American, Water-rotted,	" "	160.00	"	200.00
" Dew-rotted,	" "	140.00	"	175.00
HIDES, Southern, Dry,	" "	10	"	11
HOPS,	" lb.	6	"	35
HORNS,	" 100.	2.00	"	10.00
LEAD, Pig,	" 100 lbs.	4.80	"	4.90
Pipes for Pumps, &c.,	" lb.	5	"	7
LARD,	" lb.	7	"	8
MEAL, Corn,	" bbl.	3.00	"	3.37
MOLASSES, New-Orleans,	" gallon.	30	"	33
MUSTARD, American,	" lb.	7	"	10
NAVAL STORES—Tar,	" bbl.	1.75	"	2.00
Pitch,	" "	1.25	"	1.75
Rosin,	" "	1.30	"	1.40
Turpentine,	" "	2.44	"	2.87
Spirits of Turpentine,	" gallon.	38	"	40
OIL, Linseed, American,	" "	90	"	95
Castor,	" "	1.05	"	1.15
Lard,	" "	65	"	75
OIL CAKE,	" 100 lbs.	1.25	"	1.50
PEAS, Field,	" bushel.	75	"	1.50
Black-eyed,	" 2 "	1.75	"	2.20
PLASTER OF PARIS,	" ton.	2.00	"	2.75
Ground, in Barrels of	300 lbs.	1.12	"	1.25
PROVISIONS—Beef, Mess,	℔ bbl.	7.00	"	10.00
" Prime,	" "	3.75	"	5.25
" Smoked,	" lb.	6	"	12
" Rounds, in Pickle	" "	4	"	6
Pork, Mess,	℔ bbl.	10.00	"	12.50
" Prime,	" "	6.50	"	9.50
Bacon Sides, Smoked,	" "	3	"	4½
" in Pickle,	" "	3	"	4
Hams, Smoked,	" "	5	"	9
" Pickled,	" "	4	"	7
Shoulders, Smoked,	" "	4	"	6
" Pickled,	" "	3	"	5
RICE,	" 100 lbs.	3.00	"	3.50
SALT,	" sack.	1.00	"	1.60
" Common,	" bushel.	20	"	35
SEEDS—Clover,	" lb.	6½	"	9
Timothy,	" bushel.	2.00	"	4.00
Flax, Rough,	" "	1.80	"	1.85
SODA, Ash, (80 per cent. soda,)	" lb.	3	"	—
Sulphate Soda, Ground,	" "	1	"	—
SUGAR, New-Orleans,	" "	5	"	8
SUMACH, American,	" ton.	35.00	"	37.00
TALLOW,	" lb.	7	"	8
TOBACCO,	" "	4	"	15
Eastern, Seed-leaf,	" "	15	"	20
Florida Wrappers,	" "	15	"	60
WHISKEY, American,	" gallon.	25	"	26
WOOLS, Saxony,	" lb.	50	"	60
Merino,	" "	40	"	50
Grade Merino,	" "	30	"	40
Common,	" "	20	"	30

NEW-YORK CATTLE MARKET.

At Market 1,800 beef cattle, (500 southern, the rest from this state,) 90 cows and calves, and 6,000 Sheep and Lambs.

Beeves.—Business has been rather dull the week past—the market supplied with more than purchasers are ready to take, at the current prices, which, for good retailing qualities this week, may be quoted at from $5.50 to $8; the latter price rather hard to get.

At the up-town market, 40 head were taken for the supply of the Bermuda naval contract. About 350 unsold.

Cows and Calves are rather slow of sale. Prices range at from $20 to $47. 20 left over.

Sheep and Lambs are from 2*s.* to 4*s.* per head lower. The market is plentifully supplied, but the demand slack. Sales at from $1.75 to $5, as in quality. About 1,500 unsold. jan. 14

REMARKS.—Since our last, corn, oats, and wool have advanced, while barley and guano have fallen.

The Weather has been quite cold up to the 7th, with deep snows, north and west of us; while in this city and on the seaboard around, scarce any snow has fallen. Since the 7th, the weather has become mild and spring-like, with some rain.

TO CORRESPONDENTS.—Communications have been received from A. S. M., George Barber, C. S. Augustus, C. F., G., Thomas Roberts J., A Young Farmer, and G.

Winter Arrangement.—S. Edwards Todd, of Lake Ridge, Tompkins county, N. Y.—As your article comes too late for our February number, we have concluded to lay it over till next November, when it will be in season.

Petition to the N. Y. Legislature for the Protection of Sheep against Dogs.—Too late for this number—will appear in our next.

Virginia Lands.—J. H. D.—The price of eligible lands varies from $5 to $50 per acre. Mountain lands may be had for 50 cents per acre. If you wish for more definite information, refer to the back volumes of the Agriculturist.

Cast-Iron Horse Power.—C. F.—Taplin's Power is best for you. See our catalogue, page 40. You can use one horse or five. One of 20 feet circle costs $80. Had you not best change your horse? Any steady horse works perfectly well in a Railroad Power.

ACKNOWLEDGEMENTS.—Proceedings of the Annual Exhibition of the Philadelphia Society for Promoting Agriculture, held in October, 1850; Third Annual Report of the Virginia and Tennessee Railroad Company; Report of the Naval Committee on Establishing a Line of Steamships to the Western Coast of Africa, and thence via the Mediterranean to London, with an Appendix added by the American Colonization Society; Third Annual Report and Transactions of the Worcester, (Mass.,) Agricultural Society, for the year 1850.

FARMERS' AND PLANTERS' TOOL Chests. We have fitted up a number of tool chests especially for the use of farms and plantations, variously assorted with suitable tools, and at prices ranging from $20 to $100.

Chest No. 1 contains a Hand Saw, set of Planes, Hand Axe, Nail Hammer, Hatchet, Drawing Knife, Steel Square, Trying do., Oil Stone, Compasses, Chalk Line, four Framing Chisels, four Firmer do., and four Augers, $20.

No. 2 contains, in addition to the above, a Back Saw, Compass Saw, and Carpenter's Adz, $26.

No. 3 contains, in addition, a Broad Axe, Mallet, Spoke Shave, Gauge, Saw Set, Brad Awls, and Nail Punches, $31.

No. 4 contains, also, a brace of Bits, Bevel, Rabbet Planes, Pannel Gauge, four Files, and five additional Augers and Chisels, $40.

No. 5, a large Jointer, two Rabbet Planes, two Bed do., two Match do., Plow and Bits, Hand Gauge, and Spirit Level, are added, $54,

No. 6 has an extra fine brace of Bits, three Bed, and one additional Rabbet Planes, Gages, Files, &c., $62.

No. 7, one Pannel Square, one pair of Match Planes, one dozen heavy Firmer Chisels, Slitting Gauge, Trying Square, Fillister, and Carpenter's Rule are added, $70.

No. 8, Gutter Plane, Sash do., Circular do., two Dado Planes, Compasses, Adz, and Tape Line are added, $80.

To these may be added any other tools required, such as Pinchers, Pliers, Drills, Hand Vice, Punches, Rivets, Soldering Tools, suitable for reparing harnesses; and, in fact, almost any kind required upon the farm or plantation, at a reasonable addition to the price of any chest ordered.

A. B. ALLEN & Co., 189 and 191 Water st.

SELLING OFF TO CLOSE THE BUSIness. Linnæan Botanic Garden and Nursery, late of William Prince, deceased. Flushing, Long Island, Near New York. WINTER & Co., Proprietors.

The proprietors have still remaining, a very considerable stock and variety of Fruit and Ornamental Trees, Shrubs, Vines, Plants, Roses, &c., which they will dispose of for cash, at a reduction of 25 to 50 per cent. and upwards, from the usual prices, according to kind and quantity. Descriptive Catalogues, gratis, on application, post paid.

Apple trees, two to four years old; from $6 to $10 per 100. Pear trees, two to four years old, $25 to $50 per 100. Cherry trees, two years old, $12.50 per 100. Orange Quinces, three and a half to five feet, $12.50 per 100. Black Hamburg and other Foreign Grape Vines, extra strong plants, $5 per doz. Two-year old seedling Plumb Stocks, $7 per 1,000.

o WINTER & CO.

THE AMERICAN LIVE-STOCK INSURANCE Company, Vincennes, Indiana.
Charter Unlimited. Granted January 2d, 1850.
CAPITAL $50,000!
For the Insurance of Horses, Mules, Prize Bulls, Sheep, and Cattle, of every description, against the combined risks of Fire, Water, Accidents, and Disease.
Losses paid in 30 days after proof of death.
DIRECTORS.

Joseph G. Bowman,	John Wise,
Hiram Decker, M.D.,	Alvin W. Tracy,
Isaac Mass,	Abner T. Ellis,
George D. Hay,	Abm. Smith,

Thomas Bishop.
JOSEPH G. BOWMAN, Pres't.
B. S. WHITNEY, Sec'y. WM. BURTCH, Treasurer.
☞ Agents solicited throughout the Union. Address B. S. WHITNEY, Sec'y., Vincennes, Indiana. my 1y

BRANDE'S ENCYCLOPEDIA OF SCIENCE and Art.—A Dictionary of Science, Literature, and Art; comprising the History, Description, and Scientific Principles of Every Branch of Human Knowledge; with the Derivation and Definition of all the Terms in General Use. Edited by W. T. Brande, F. R. S. L. and E., assisted by Joseph Cauvin, Esq. The various departments by eminent, literary and scientific gentlemen. Illustrated by numerous engravings, on wood. 8vo., sheep extra. $4.

This valuable work, for accurate information upon a vast variety of subjects brought up to the present day, and carefully digested, is unrivaled and unequaled.—*Tait's Magazine.*

Clear and authentic, copious without prolixity, it does not furnish a bald explanation of facts and terms, but a development of principles well illustrated and explained.—*Times.*

He who has no encyclopedia will find it an excellent substitute for one; and he who has, will find it a valuable supplement. While it is sufficiently full and copious to supersede the necessity for the more gigantic works of an encyclopedic character, no mere cyclopedia can supply its place.—*Eclectic Review.*

HARPER & BROTHERS.

SCHOOL OF APPLIED CHEMISTRY, Yale College, New Haven. John P. Norton, Professor of Scientific Agriculture. The Laboratory of this department is now open, and instruction is given in all branches of Chemistry, Organic and Inorganic. Particular attention is paid to Agricultural Chemistry; and students in this branch have every facility afforded for acquiring a knowledge of the analysis of soils, plants, &c. A course of Lectures on Scientific Agriculture, by Professor Norton, commences in January, and continues two and a half months. This is intended to present theory united with practice in a plain and distinct manner, so that the general principles can be comprehended by all. Analyses and investigations made, on reasonable terms. For further information, apply to
d3t Professor J. P. NORTON, New Haven, Ct.

COMMERCIAL GARDEN AND NURSERY of Parsons & Co., Flushing, near New York. The proprietors of this establishment offer for sale their usual assortment of Fruit and Ornamental Trees, Shrubs, Vines, Roses, &c. Their stock of Apples and Pears is finer than any they have before offered. Also, Pears on Quince, of their own growing. The Ornamental Department contains the usual well-known varieties and all the best new Trees and Shrubs for Lawns and Arboretums, including the new Pines, Araucaria imbricata, and Cryptomeria japonica, with Cedar of Lebanon, at one to two dollars each, and Cedrus deodara of various sizes, at one dollar per foot. Catalogues furnished gratis on application by mail.
o tf PARSONS & CO.

GREENHOUSE PLANTS, VINES AND Roses. Parsons & Co. offer for sale every desirable variety of Greenhouse Plants, and many valuable novelties recently introduced from Europe. Attention is particularly directed to their fine stock of Camellia wilderii, the perfection of whose form is not attained by any other variety. The original stock, both of this and C. Abbey Wilder, is in their possession.

Growers of Grapes are invited to examine their Vineries, now in full fruit, and from which they can furnish good vines of about forty varieties, at

50 cents for those one year old.
75 " " two years old.
$1.00 " " of extra size.

Their stock of saleable roses includes some thousands on their own roots of the Remontant, Bourbon, China and Garden Roses, in their various sub-classes. Catalogues furnished gratis on application to Flushing, near N. Y. PARSONS & Co.
o

FRUIT TREES FOR SALE.—50,000 Peach Trees, all of the best market varieties, at the following prices:—By the single hundred $5. One thousand, $45. And ten thousand for $400. Also, 40,000 Apple Trees of the best market varieties, and of large size. By the single hundred, $12.50, or one thousand for $110. Matts and packing, $1 per hundred for Peach, and $2 for Apple Trees. Catalogues will be forwarded to all applicants.
ISAAC PULLEN,
jan 4t Hightstown, Mercer Co., New Jersey.

GREAT SALE OF DAIRY STOCK.—The subscriber will offer for sale, without reserve, at Public Auction, on Tuesday the 25th day of March, 1851, at 12 o'clock, on the farm on which he resides at Morrisania, Westchester county, N. Y., upwards of 100 head of Cows and Heifers. About 50 head are Native and Amsterdam Dutch Cows, selected by the subscriber with reference to milking qualities. The remainder, about 50 head, are grades, one half, three quarters, and seven eighths blooded. Heifers from one to five years old, bred by the subscriber out of the very best of cows, and got by the celebrated imported shorthorned bull Marcus, and so far as they have come to maturity, they appear to combine with most faultless symmetry, nearly every point indicative of perfection in a dairy cow. Taking the whole dairy together, it is, perhaps, the best selected in the United States. The cows, with a few exceptions, are all young and in calf by the fine bull Amsterdam. The many premiums that I have been awarded by the State Agricultural Society and the American Institute give evidence of my success as a breeder. I will also sell my shorthorned cow that took the first Premium at the American Institute Fair in October last, two two-year-old heifers, and one yearling, all thorough bred. Two yoke of very superior working cattle, with several fine horses, one boar of the Russian grass breed, one imported, improved Berkshire sow and pigs, one Suffolk sow and Pigs. The number of hogs, in all, will be from 50 to 60, and some of them as fine as can be produced. All the farming utensils, also those of the dairy, which are numerous. A catalogue and description of each animal will be given on the day of sale. Stock purchased to be sent to a distance will be delivered by the subscriber, on ship, canal, or railroad cars, in the city of New York, free of risk and expense to the purchaser.

Morrisania is nine miles from New York by Harlem Railroad.
f 2t* THOMAS BELL.

SITUATION AS A FARM MANAGER Wanted. A middle-aged man who has devoted many years to agricultural pursuits, and who perfectly understands the breeding and diseases of cattle, the cultivation of green crops, &c., is desirous of obtaining an agency or the management of a farm. Respectable references can be given. Address
f 1t* "AGRICULTURIST," Office of this paper.

FOR SALE.—The Dwelling House and about seven acres of ground adjoining, situated in the centre of Northampton, Mass., formerly occupied by Thomas Napier, Esq. The house is in complete repair, with all the modern improvements. It commands a beautiful view of the Connecticut Valley, and is within half a mile of the railroad. For particulars, inquire of
R. L. ALLEN, 189 Water st. N. Y., or
f S. S. HINCKLEY, Albion Hotel, Boston.

ENDLESS-CHAIN PUMPS, OR WATER Elevators. These highly approved machines operate upon the same principle as those used for grain. The elevator is made a part of an endless chain, that works over an iron wheel, and down into the water, around a pulley into the tube, through which a constant stream is made to flow into the pail, by simply turning the crank, attached to the wheel at the top, which any light hand can do with great ease. They are made of several sizes, and can be fitted up for any depth well, or cistern required.

A New Use for Chain Pumps.—One of these of large bore, is the most efficient machine ever used for emptying the vaults of privies, where the contents are in a semi-liquid state.

EAGLE PLOW.—No. 28.—The following extract from the letter of a gentleman who purchased one of these plows, fully explains its character. "In answer to your inquiry how I like the great breaking plow, I have to say it entirely exceeds my expectations, and even your own recommendation, which I then thought quite extravagant. I put on four stout yoke of oxen, and drove into the thickest patch of scrub oak roots upon my farm; not without some misgivings, that I should break the plow instead of the roots; but I have now turned over twenty acres as completely as though it had been nothing but stubble, and the plow is this day better than it was when it came from your store. I think it the cheapest and best plow for such heavy work ever invented."

These plows are for sale at our Agricultural Warehouse, No's. 189 and 191 Water st., New York. Price, plain, $18—full rigged, with wheel, draft rod, and cutter, $20. A. B. ALLEN & Co.

GARDEN AND FIELD SEEDS FOR 1851. We are getting in, not only our usual supply, but a larger stock than ever, of all kinds of seeds required, either for field or garden culture, fresh and free from noxious weeds, &c., which are offered at wholesale or retail. Orders for trees and shrubbery executed as usual.
f A. B. ALLEN & Co. 189 and 191 Water st. N. Y.

MINER'S BEE HIVE.—This beautiful and valuable Hive, may be had of the subscribers, and sent to any distance, for $5, including a Right to make the same; with full directions, so simple that any joiner can make it for only $2. This hive is positively the best that has ever been sold in the United States.
dtf A. B. ALLEN & Co, 191 Water st., N. Y.

NEW-YORK
AGRICULTURAL WAREHOUSE AND SEED STORE,

A. B. ALLEN & CO. 189 AND 191 WATER STREET, NEW YORK.

THE SUBSCRIBERS *keep constantly on hand, and offer for sale the largest and most complete assortment of Agricultural and Horticultural Implements, and Field and Garden Seeds in the United States, among which may be found the following :—*

WATER RAMS—of various sizes, for raising water, made entirely of metal.

CIDER MILLS of simple construction, and capable of grinding fine, and in the most rapid manner.

MILL FOR GRINDING BONEDUST.—For sale, a second-hand mill, to be driven by horse, steam or water power.

WINTER WHEAT.—Etrurian, Mediterranean, White Flint, and several other varieties, of the best and most improved kinds of Winter Wheat for sale.

TIMOTHY, fresh reaped, a choice article.

BLUE GRASS, Fresh Kentucky, just received, suitable for lawns, and early and late pastures.

CLOVER, both Red and White, free from all foul seed.

WAGONS.—Single or double of any required shape. Also, Axles and Wheels.

CARTS.—Hand and Ox Carts, and Wheels of different sizes, made of the best material at short notice.

FERTILISERS of various kinds constantly on hand and for sale on reasonable terms—such as

GROUND PLASTER—in bags or barrels.

GROUND BONES—Bone Dust, or Meal, of superior quality, in barrels.

POUDRETTE—at manufacturers' prices.

FOREIGN SEEDS, of superior quality and late importation.

GRASS SEEDS.—Ray Grass, Lucern, and White Dutch Clover Seeds.

GARDEN SEEDS.—A large stock selected with care, expressly for the American Market.

ENDLESS-CHAIN PUMPS of all sizes, to be furnished complete, or in either of their parts, both in large and small quantities.

HIGHLY IMPROVED FORCING PUMP and Garden and Fire Engine, a better and cheaper article than ever before offered in the New-York, or any other market, to be sold in any quantity.

NEW AND HIGHLY IMPROVED LACTOMETERS.—We have just got up a new article of cream gauge, far better and more accurate than any heretofore made. Price $5, with a liberal discount to dealers.

CHEAP SOUTHERN PLOWS.—Nos. 10½, 11½, 12, 14, 15, and every variety, including several new and highly popular kinds, for sale in large quantities.

ROOT PULLERS.—A useful instrument for drawing out bushes, roots, and small stumps.

VEGETABLE BOILERS, used for boiling food for stock, holding from 15 to 120 gallons.

PREMIUM FANNING MILLS.—These machines considering the simplicity of their construction, and efficiency of all their operations, are the best in use.

SAUSAGE CUTTERS AND STUFFERS.—These will save nine tenths of the labor in cutting sausage, or other mince meat.

EAGLE PLOWS.—Many plows having been sold under the name of the *Eagle Plow*, which are not genuine, this is to give notice that all plows sold in this city under that name, to ensure confidence, will have our name marked on the beam, and no others purchased here, can be relied on as genuine without this brand.

☞ Be *particular*, also, as to the *name*, *number*, and *street*, which should be

A. B. ALLEN & CO., 189 and 191, Water st., New York.

BRICK MACHINES of the best construction, will make 10,000 to 15,000 bricks per day by hand.

GRAIN MILLS.—Steel and Cast-Iron Mills at $6 to $25, and Burr-Stone at $75 to $250, for Horse or Steam Power.

PUMPS.—Suction and Forcing Pumps of all sizes with pipe, at lowest manufacturers' prices.

CORN AND COB CRUSHERS, of different varieties, efficient and durable both for hand and horse power.

RICE THRESHERS, suitable for large or small Plantations, and adapted to Wheat, Rye, Barley, and Oats.

WHEELBARROWS, Canal and Coal Barrows, of various kinds and sizes.

STRAW CUTTERS of every approved pattern and size, for hay, straw, corn and cane stalks.

CORNSHELLERS.—Several new styles recently made, together with all the old and most popular kinds.

MACHINES for rasping the Mandioca, or Brazilian arrow root; the Curcuma angustifolia, or East India arrow root; the Cycas circinalis; the Zamia pumila of Florida; Maranta arundinacea, or common arrow root plant of the West Indies; and the yuca, or cassava plant of Cuba; potatoes, &c, &c.; from some or all of which sago, arrow root, tapioca, and starch are made.

ALLEN'S IMPROVED PORTABLE RAILroad Horse Power, Thresher, and Separator.—The advantages of the above horse powers are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3. They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder with a concave top, and possess these advantages. 1. They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, stones, blocks, &c., drop at the end of the table, and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The separator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of wheat or rye per day; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Separator and fixtures,	$7
" Bands for driving, etc.,	$5to $10
" Wood-sawing machine, complete, and in running order,	$35
Price of Double Power,	$100
" with Thresher, Separator, &c.,	$140 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfacion.

A. B. ALLEN & CO., 189 and 191 Water st., N. Y.

FRENCH MERINO BUCK.—A very large and superior Merino Buck for sale, bred from the late importation from France by Mr. Taintor of Connecticut. He is two years old, and shears an uncommonly large and fair fleece. Price $150.

otf SAMUEL ALLEN, 189 Water St., New York.